STATE OF NORTH CAROLINA

PERFORMANCE AUDIT

E-COMMERCE PROJECT OFFICE AND STATEWIDE PORTALS CONTRACT

DECEMBER 2009

OFFICE OF THE STATE AUDITOR
BETH A. WOOD, CPA
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The Honorable Beverly E. Perdue, Governor
Members of the North Carolina General Assembly
Mr. Jerry Fralick, State Chief Information Officer,
  Office of Information Technology Services
Mr. Britt Cobb, Secretary, Department of Administration

Ladies and Gentlemen:

We are pleased to submit this performance audit titled *E-Commerce Project Office and Statewide Portals Contract*. The audit objectives were to determine (1) whether the contract was negotiated and managed effectively, (2) whether the cost-savings analyses were accurate, and (3) whether time and materials costs were verified. Mr. Fralick and Mr. Cobb have reviewed a draft copy of this report. Their written comments are included in the appendix.

The State Auditor initiated this audit to identify improvement opportunities in state contract administration.

We wish to express our appreciation to the staff of the Office of Information Technology Services and the Division of Purchase and Contract at the Department of Administration for the courtesy, cooperation, and assistance provided us during the audit.

Respectfully submitted,

Beth A. Wood

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State Auditor

TABLE OF CONTENTS

SUMMARY

PURPOSE

This audit report evaluates the State's administration of the E-Commerce Project Office and Statewide Portals Contract (Contract) and makes recommendations so state leaders can take appropriate corrective action. Specifically, the audit objectives were to determine whether the Contract was negotiated and managed effectively, whether the cost-savings analyses were accurate, and whether time and materials costs were verified.

RESULTS

The State did not negotiate and manage the Contract in a manner that protected the interest of the State. Accenture, LLP (Accenture) proposed that the State could "self-fund" over a four-year period the $64.1 million purchase and operation of an e-procurement system by charging vendors a 1.75% transaction fee on commodities purchased through the system. The plan had an inherent risk that the e-procurement transaction fees would be inadequate to pay for the system. Although Accenture had a financial interest in moving the project forward, the State relied on the vendor's analysis and forecasts to determine the feasibility of the e-procurement project without independent verification. Instead of using contract terms to completely transfer the risk of project failure to the vendor, the State agreed to terms and conditions that obligated the State to pay even if the vendor-proposed "self-funding model" did not generate the forecasted revenues.

When forecasted transaction fees were not realized, the State found it necessary to renegotiate the Contract and relinquish five years of future e-procurement transaction fees (about $100 million) to avoid having to make an immediate $26.7 million cash payment to the vendor. The State relinquished the future revenue without performing a cost/benefit analysis to determine if the decision was in the best interest of the State. As a result of the renegotiated terms, Accenture could collect e-procurement transaction fees totaling about $126.9 million over a nine-year period ending February 2010. Under the original agreement, the vendor would have received an estimated $64.1 million over a four-year period. Accenture's revenue from this contract could be greater than $126.9 million because the State is not prepared to assume operational responsibility for the e-procurement system when the Contract ends in February 2010. Consequently, the State will likely have to extend the current agreement for at least one year at a currently undetermined cost.

The Division of Purchase and Contract (P&C) at the Department of Administration reported inaccurately that the e-procurement system had saved the State $127 million through December 2003 and $347 million through December 2005. The savings estimates are flawed because P&C did not ensure that Accenture used a statistically valid methodology to prepare the analyses. Specifically, the sample sizes used to estimate the savings were too small, the samples did not include service items (only goods), and sample items were not randomly selected. Additionally, the vendor did not follow the measurement methodology prescribed in the "North Carolina E-Procurement Baseline Report." Consequently, the actual amount of savings that the State has experienced from the e-procurement system is unknown.

The Office of Information and Technology Services (ITS) did not perform procedures to determine that Accenture time and materials invoices were accurate and chargeable to the Contract. The vendor billed the State $5.2 million for time and material costs incurred for developing the Statewide Web Portal, conducting due diligence for the e-procurement project, and for establishment and support of the E-Commerce Project Office. However, ITS did not perform verification techniques such as review of contractor employee time records, observation of contractor operations to verify contractor employees are charging time appropriately, review of contractor purchases for reasonableness, and reconciliation of contractor purchasing documentation to the amounts billed by the contractor. ITS limited its procedures to approving the amounts Accenture billed the State. As a result, ITS cannot be sure that the State only paid for valid time and materials charges.

RECOMMENDATIONS

ITS should ensure that contracts for information technology services are negotiated and managed effectively. ITS should ensure vendors are held accountable for their estimates, contract risks are properly managed, and contract terms are negotiated to protect the interests of the State on information technology projects.

The State should not rely on the estimated savings reported by P&C to make decisions about the e-procurement system. P&C should ensure that an independent third party knowledgeable in statistical methods performs all future e-procurement system cost-savings analyses.

ITS should perform adequate procedures to ensure the accuracy and validity of contractor time and material invoices to protect the State’s interests. Alternatively, ITS should use contract terms and conditions, such as fixed costs, that transfer the risk of labor and materials inefficiency to the contractor.

INTRODUCTION

BACKGROUND

At a meeting of the Information Resource Management Commission (IRMC) on February 1, 2000, the IRMC Secretary announced the formation of the NC Statewide E-Commerce Steering Committee to oversee a statewide web portal initiative (NC Gov.com). The IRMC was established in July 1992 to develop, approve, and sponsor statewide technology initiatives and to report on those initiatives in the annual update of the statewide information technology strategy.

In May of 2000, the Office of Information Technology Services (ITS) awarded a four-year E-Commerce Project Office and Statewide Portals Contract (Contract) to Accenture, LLP (Accenture) as part of an e-commerce initiative. The Contract called for Accenture to develop an e-procurement system for the State with the expectation that the State would realize reduced costs from a more efficient purchasing process and price savings from the ability to leverage the state's purchasing power. Additionally, the plan was for the e-procurement system to be self-funded through a vendor-paid 1.75% transaction fee on each commodity purchase order processed. Transaction fees were not to be charged on services.

The Contract between the State and Accenture was originally approved by the IRMC and executed by ITS. Implementation of the e-procurement system was governed by an operating committee consisting of representatives from ITS, the Department of Administration's Division of Purchase and Contract (P&C), and the Office of the State Controller (OSC), with approval by the Office of the Governor. The design, development, and payment for the project was the responsibility of ITS through its appointed project director. The project director was responsible for approving all software releases, modifications, deliverables, and invoices provided by Accenture.

In 2002, the General Assembly established a shared responsibility between the Department of Administration (DOA) and ITS for the e-procurement. North Carolina General Statute 143.48.3 made DOA responsible for developing and maintaining electronic or digital standards for procurement. The legislation also required DOA to use ITS to "operate this electronic procurement system, through State ownership or commercial leasing, in accordance with the requirements and operating standards developed by the Department of Administration."

In 2004, legislation disbanded the IRMC. In the same year, the General Assembly ratified Senate Bill 991 (*North Carolina General Statute 147, Article 3D)* to improve state government information technology planning, adopt information technology standards, make information technology project development more efficient, reduce cost overruns, and increase accountability. Senate Bill 991 assigned the responsibility for planning and managing the State's information technology projects and resources to ITS.

From November 2001 through June 2009, approximately 23,350 vendors were billed e-procurement transaction fees totaling $106.4 million[1] on commodity purchases totaling

[1] Source: Accenture

$6.5 billion made by state agencies, schools, community colleges, and universities. Including vendors that provide services, the e-procurement system has over 64,437 registered vendors who have accepted $14.8 billion in electronic orders since 2001.[2]

OBJECTIVES, SCOPE, AND METHODOLOGY

The audit objectives were to determine whether the Contract was negotiated and managed effectively, whether the cost-savings analyses were accurate, and whether time and materials costs were verified.

The State Auditor initiated this audit to identify improvement opportunities in state contract administration.

The audit scope included the operation of the State's e-procurement system from its inception on May 31, 2000 to June 30, 2009. We conducted field work from August 15, 2008, to July 8, 2009.

To determine if the Contract was negotiated and managed effectively, we interviewed personnel at the ITS, P&C, and Accenture. We reviewed ITS, P&C, and Accenture contract documentation and analyses, meeting minutes, change orders, memorandums, legislation pertaining to ITS service contracting, and best practices for service contracting.

To determine the accuracy of the cost-savings analyses, we interviewed the P&C e-procurement contract administrator, Accenture management, and the President of Hubbard Decision Research. We reviewed cost-savings analyses reports and related documentation, the "North Carolina E-Procurement Baseline Report", and Accenture cost-savings analyses calculations.

To determine if time and materials cost were verified, we interviewed ITS and P&C management and contract administrators. We reviewed Contract documentation and reports, Accenture invoices, ITS and P&C time and materials verification procedures, and contract management best practices.

Because of the test nature and other inherent limitations of an audit, together with limitations of any system of internal and management controls, this audit would not necessarily disclose all performance weaknesses or lack of compliance.

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 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.

We conducted this audit under the authority vested in the State Auditor of North Carolina by *North Carolina General Statute 147-64.*

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[2] Division of Purchase and Contract; NC E-Procurement At Your Service. www.eprocurement.nc.gov

1. CONTRACT WAS NOT NEGOTIATED AND MANAGED EFFECTIVELY

The State did not negotiate and manage the E-Commerce Project Office and Statewide Portals Contract (Contract) in a manner that protected the interest of the State. Although Accenture, LLP (Accenture or vendor) had a financial interest in the project, the State relied on the vendor's analysis and forecasts to determine the feasibility of the e-procurement project without independent verification. The State retained significant contract risks and agreed to terms and conditions that obligated the State to pay even if the vendor-proposed "self-funding model" did not generate the forecasted revenues. When forecasted transaction fees were not realized, the State relinquished five years of future e-procurement transaction fees to the vendor without performing a cost/benefit analysis to determine if the decision was in the best interest of the State. Additionally, the State is not prepared to assume operational responsibility for the e-procurement system when the Contract ends in February 2010. If properly exercised, new authority granted to the State Chief Information Officer's (SCIO) in 2004 could help prevent poorly negotiated and managed information technology contracts in the future.

No Independent Verification of Vendor's Analyses and Forecasts

The State did not independently verify Accenture's analysis and forecasts before committing to a project in which the vendor had a financial interest. Without verification, the State also relied on the vendor's cost-savings analyses as an indication of the project's success.

Although Accenture had a financial interest in moving the e-procurement project forward, the State paid Accenture to perform a feasibility study for the project. The State relied on Accenture's estimates and then contracted with the vendor to develop and implement an e-procurement system that would be paid for by charging companies who do business with the State a 1.75% transaction fee on commodity purchase orders processed through the e-procurement system. In 2004 and 2006, Accenture also prepared cost-savings analyses for the e-procurement project.

Problems with Accenture's financial interest and e-procurement project responsibilities included the following:

- It is common for vendors to perform the feasibility study; however, independence is lacking because of the vendor's financial interest ($64.1 million in this case) in the development and implementation of the project. Accenture proposed the financing method called the "self-funding model"[3] and prepared the feasibility study for the e-procurement project. The State paid the vendor $657,969 to perform the feasibility study that included estimates of transaction fees, project costs, project benefits, project risks, and implementation schedules.

[3] Accenture later patented the self-funding model as *Method and System for an Electronic Procurement System for State Governments*, patent number US 6,920,430 B1.

- Accenture had an interest in demonstrating that the e-procurement system resulted in cost-savings to the State. Accenture gathered the data and performed the calculations to estimate savings from the e-procurement project. The State did not independently verify the data or the calculations for the analyses.

- Accenture may have had a financial interest in Epylon Corporation when Accenture recommended that Epylon provide e-procurement software for North Carolina's e-procurement system. The recommendation was documented in the "State of North Carolina E-Procurement Due Diligence Report" dated January 26, 2001. Accenture then announced that it had acquired Epylon on August 20, 2001.

Using studies and analyses prepared by vendors with a financial interest in the project increases the risk that the State will make purchasing decisions based on optimistic projections. In the report "State Government E-Procurement in the Information Age: Issues, Practices, and Trends", [4] author M. Jae Moon warns:

> Many state governments rely on private companies' participation and private resources in developing the technical systems, and support a financial arrangement in which the private companies later recoup their investment by charging various fees. Accordingly, many e-procurement systems are developed, provided, and maintained by vendors and ASPs [application service providers], which leads to the potential problem of private business interests overruling public interests. E-procurement systems driven by private businesses could be corrupted when those private interests lack appropriate accountability mechanisms.

Therefore, it would have been prudent for the State to ensure that the e-procurement contract terms and conditions held Accenture accountable for the implementation schedule and transferred the risk of unrealized revenue estimates to the vendor.

State Retained Significant Contract Risks

The State relied on vendor-provided implementation schedule and revenue estimates but did not identify clear penalties and corrective action for non-performance in the contract, did not require a performance bond from the vendor, and did not include contract terms and provisions to completely transfer the risk of unrealized revenue estimates to the vendor. Accenture estimated that the dollar amount of state purchases or "spend" through the e-procurement system would be sufficient to achieve baseline revenue of $64.1 million in transaction fees over a four-year period from February 2001 through January 2005. If Accenture's estimates were inaccurate and the transaction fees were not sufficient to achieve the annual baseline revenue on a cash basis, the State was still contractually obligated to pay Accenture a minimum of 70% of the Accenture estimated baseline revenue, or $44.9 million.

[4] Moon, M. Jae. State Government E-Procurement in the Information Age: Issues, Practices, and Trends. The PricewaterhouseCoopers Endowment for The Business of Government, 2002

The State did not realize the projected revenues. On December 31, 2001, the "North Carolina E-Procurement Baseline Report" stated that the e-procurement project would have a transaction fee shortfall during the first year due to a "delay in the implementation schedule" and the "severity of the State's budget situation." In July 2002, Accenture billed the State $3.5 million because baseline revenue estimates had not been achieved. Several problems prevented the State from achieving the purchase transaction levels necessary to realize the projected revenues including system integration delays, state agency reluctance to participate in e-procurement, and a state budget crisis. In an August 15, 2002, memorandum, the SCIO at the Office of Information Technology Services (ITS) described the situation:

> Technologically, the system is installed in all but one Executive Branch agency and, while it is complicated, it is working. There was not a seamless integration between the E-Procurement System and NCAS [North Carolina Accounting System], so a custom interface had to be constructed. There is currently no system integration to interface with all LEAs [Local Education Authorities] and Community Colleges, although that would be the next logical step in the project to enable an increase in transaction volume and subsequently to increase the spend volume.
>
> While the initial technology is in place, the major drawback to the project is the financial model. The model estimates were based on expenditures for government purchases in the fiscal year prior to the contract. A transaction fee of 1.75% would be applied to those expenditures, and a certain amount of the fee each year would be used to reimburse Accenture for a portion of the project expenses. In the years that the transaction fee is insufficient to pay for project expenses, Accenture agreed to pay for the first 30% of the shortfall and the State would pay the remainder. Because the budget crisis dramatically reduced the amount of government purchases, the expenditure assumptions upon which the financial model was based are no longer valid. There was a shortfall the first year.
>
> The other issue with the financial model is that it originally included all Executive Branch agencies and universities, and a percentage of the community colleges and LEAs, where those governmental entities were within the procurement authority of DOA [Department of Administration] and ITS Procurement. Now, there is movement by some of the governmental entities to be statutorily exempted from E-Procurement. If the General Assembly exempts any of these entities, the enterprise model for E-Procurement would be deemed a failure.

E-procurement transaction fee revenues continued to fall short of projections during the remainder of the four-year contract. Accenture only collected $18.2 million, or 28.4% of the projected baseline revenue, in e-procurement transaction fees during the original four-year contract term. Based on the e-procurement fees collected by Accenture, ITS estimated that the State would have had to pay Accenture an additional $26.7 million by the end of the original contract term due to the revenue shortfall.

Contract Risks Could Have Been Mitigated

To protect the State's interest, the Contract could have included terms to completely transfer the risk of implementation delays and unrealized revenue estimates to the vendor and relieve the State of its obligation to pay in case the vendor-proposed business model failed.

For example, the State could have included penalties in the Contract for not meeting the vendor-proposed implementation schedule. The National State Auditors Association "Best Practices in Contracting for Services" recommends that contracts contain "performance standards, performance incentives and/or clear penalties and corrective action for non-performance." Additionally, the "State of North Carolina E-Procurement Due Diligence Report" prepared by Accenture identified the risk of "implementation schedule slippage" and recommended a mitigation strategy of "enforcement by the project manager of the firm deliverables and due dates established in the contract with specific remedies for slippage." However, the State did not include penalties in the Contract to hold the vendor accountable for the implementation schedule.

Also, the State could have required the vendor to provide a performance bond. A performance bond is "a bond issued to one party of a contract as a guarantee against the failure of the other party to meet obligations specified in the contract."[5] The National State Auditors Association "Best Practices in Contracting for Services" recommends that contracts "should include a requirement for a performance bond when appropriate." In Florida's e-procurement contract with Accenture, the state required a performance bond from the vendor. In October 2002, Florida's Department of Management Services contracted with Accenture to develop and operate an e-procurement system called MyFloridaMarketPlace. The Florida Auditor General reports:[6]

> Section 7.6 of the e-Procurement contract requires Accenture, at its own cost, to provide the Department an original performance and payment bond covering the faithful performance of the contract and payment of all obligations arising from the contract in the amount of $35 million for the first year of the contract, reduced to $20 million for the second year, and further reduced to $10 million for the remaining years. On October 9, 2002, Accenture obtained a performance bond for $35 million in accordance with contract provisions. The performance bond indemnifies the Department from and against any failure on Accenture's part to faithfully perform the obligations imposed under the terms of the contract.

Although delays in implementing the e-procurement system would reduce the amount of transactions fees available to meet North Carolina's contractual obligations, the State did not require a performance bond from Accenture to mitigate the risk.

[5] Investopedia Dictionary. www.Investopedia.com

[6] Report No. 205-116, Department of Management Services MyFloridaMarketPlace Operational Audit. Florida Attorney General, pg. 15, 2005

Additionally, the State could have included language in the Contract to establish the e-procurement transaction fees as the only source of funds available to compensate Accenture. In Florida's e-procurement contract with Accenture, the state transferred the risk of inadequate transaction fees to the vendor. Florida's e-procurement system was to be self-funded by charging a 1% transaction fee to vendors doing business with the state. Florida's e-procurement contract protected the state's interest by including the following language:[7]

> The Parties agree that the risk associated with the level of revenue produced through the Transaction Fee less the Legislative Budget Request for the Department's Division of State Purchasing not being sufficient to fund the development, installation, operation, and maintenance of the system as well as provide a reasonable return on investment for the Service Provider is borne entirely by the Service Provider. Service Provider shall not look to the Department or the State for relief from any losses incurred, except for those limited situations described in Sections 8.4.2(c) and 10.10.[8]

Although no funds other than the e-procurement transaction fees were budgeted to meet North Carolina's contractual obligations, the State did not include language in the Contract to completely transfer the risk of unrealized vendor-proposed revenue estimates to Accenture. On the contrary, the State agreed to pay for any shortfall that was greater than 30% of the vendor-estimated annual baseline revenues.

<u>No Cost/Benefit Analysis Before Deciding to Relinquish Future Revenue</u>

Because funds were not budgeted to pay Accenture for the revenue shortfall, the State relinquished five years of future e-procurement transaction fees, approximately $100 million,[9] to Accenture to avoid making an immediate $26.7 million cash payment to the vendor. However, the State did not perform a cost/benefit analysis to determine if this decision was in the best interest of the State. The State did not estimate what the next five years of e-procurement transaction fees would be, estimate what it would cost the State to assume operational responsibility for the e-procurement system, and then compare the estimated revenues to the estimated costs to determine the best course of action.

The State originally planned to benefit from the e-procurement transaction fees. With the original agreement, Accenture would have received its money by the end of the four-year business model, ending in January 2005. Then the State could have renegotiated the fee amount that Accenture would receive to continue operating the e-procurement system, or

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[7] Report No. 205-116, <u>Department of Management Services MyFloridaMarketPlace Operational Audit</u>. Florida Attorney General, pg. 10, 2005

[8] In Florida's contract, section 8.4.2(c) relates to termination and section 10.10 relates to changes in statutes, rules, and regulations.

[9] Accenture received e-procurement transaction fees of $17.3 million, $20 million, $20.3 million, and $21.5 for fiscal years 2006, 2007, 2008, and 2009. If state purchasing levels remain constant, Accenture would also receive about $21 million in 2010.

the State could have decided to operate the e-procurement system and retain all of the vendor-paid transaction fees. The *North Carolina E-Procurement Baseline Report* issued by Hubbard Decision Research predicted that the e-procurement system would be a "source of ongoing funds when e-procurement becomes self sufficient (all implementation costs repaid and operation cost covered)." Also, a February 2001 "North Carolina E-Procurement Service Overview" document states[10]:

> At the end of the four-year business model, all financing should be paid off and the service should be self-sustaining and gainful by generating sufficient funds for operation, as well as returning significant contributions to participants in the service in accordance with applicable state statutes. Self-sufficiency could be achieved sooner, depending on the dollar volumes of purchases conducted through the service.

However, the dollar volumes of purchases and the resulting e-procurement transaction fees were not sufficient to pay for the e-procurement system. The State chose to renegotiate the Contract because no funds were budgeted to pay Accenture. The State started negotiating with Accenture in February 2002. On May 25, 2005, the SCIO signed an amendment to the Contract that relieved the State of any cash payment responsibility for e-procurement transaction fee shortfalls, paid Accenture $4.5 million for the purchase of the Statewide Web Portal, and gave Accenture the right to collect the e-procurement transaction fees until February 6, 2010. Thus, the State avoided having to pay the vendor an estimated $26.7 million.

As a result of the renegotiated terms, Accenture could collect e-procurement transaction fees totaling approximately $117.2 million by the end of the Contract. Table 1 below shows that Accenture has collected $103.2 million in e-procurement transaction fees as of June 30, 2009, and Accenture could collect another $14 million by the time that the Contract ends in February 2010.

Table 1 – E-Procurement Fees

Net E-Procurement Fees Collected by Accenture	**FY01**	**FY02**	**FY03**	**FY04**	**FY05**
	$0	$579,937	$4,297,963	$7,884,096	$11,266,695
	FY06	**FY07**	**FY08**	**FY09**	**Total**
	$17,255,973	$20,096,859	$20,305,968	$21,514,553	$103,202,044

Source: Accenture

In total, Accenture could receive about $126.9 million over a nine-year period. Under the original agreement, the vendor would have received an estimated $64.1 million over a four-year period. Amounts collected or expected to be collected by Accenture include:

[10] The "North Carolina State E-Procurement Service Overview" was presented at an E-Gov Committee meeting on February 21, 2001.

- $103.2 million in e-procurement transaction fees collected from fiscal year 2001 through 2009;

- $14 million in auditor estimated e-procurement transaction fee collections from July 2009 through February 2010;

- $5.2 million in time and material costs collected for developing the Statewide Web Portal, conducting due diligence for the e-procurement project, and establishing and supporting an E-Commerce Project Office;

- $4.5 million collected as a license fee for the Statewide Web Portal.

If the State had finished out the original Contract, Accenture would have received the $18.2 million in e-procurement transaction fees collected through January 2005 and State cash payments of $26.7 million, for a total of $44.9 million.

Because the State did not perform a cost/benefit analysis before deciding to relinquish five years of future revenues, there is no documentation available to determine if the decision was in the best interest of the State. The National State Auditors Association "Best Practices in Contracting for Services" recommends that agencies should "conduct a cost/benefit analysis and evaluate options, such as whether contracting is more or less expensive than using agency staff." However, the State found it necessary to relinquish about $100 million in future e-procurement transaction fees without knowing if it would be less expensive to operate the e-procurement system using state personnel. The State found this action necessary because it failed to adequately plan for the risk that e-procurement transaction fees would be insufficient to meet Accenture's baseline revenue estimate.

State Not Prepared to Assume Operational Responsibility

The State will incur additional costs for services because the State is not prepared to assume operational responsibility for the e-procurement system when the Contract ends in February 2010. The State is not prepared to transition operational responsibility for the e-procurement system from Accenture to state personnel although responsible parties have known since 2002 that the State needed to prepare.

In an August 2002 memo, the SCIO noted that the State needed to "Plan for the final contract transition year in order to obtain the skilled employees necessary to continue operation of the system after Accenture's contractual obligations end."

The Department of Administration (DOA) also acknowledged the need to prepare for the transition in a presentation to the Governor-Elect's Transition Advisory Group in November 2008:

> The state's current electronic procurement (e-procurement) system is managed by a private vendor, Accenture, pursuant to a contract that expires in February 2010. The new administration will need to decide whether to extend the contract with

> Accenture, seek another vendor, or bring e-procurement in-house. The decision should be made before July 2009.

However, no decision has been made. In July 2009, ITS and DOA told the auditors:

> ITS and DOA have assigned a team to discuss with Accenture requirements and details of the current e-procurement system, which is required to develop alternatives for providing e-procurement services after February 2010. Accenture presently is preparing an estimate of the work involved in implementing a necessary upgrade to portions of the current system in order to assist the State in determining its most appropriate course of action.

According to the Contract, the State would not have incurred additional transition services costs if the transition services did not exceed those outlined in the Contract and were completed before the Contract's end date. Because the State is not ready for the transition, the State will likely have to extend the current agreement for at least one year at a currently undetermined cost.

New Authority for SCIO

The SCIO did not have sole authority over information technology contracts when ITS awarded the four-year e-procurement contract to Accenture in May 2000. The Information Resource Management Commission (IRMC) originally approved the Contract between the State and Accenture. ITS executed the Contract, and an operating committee consisting of representatives from ITS, the Department of Administration's Division of Purchase and Contract (P&C), and the Office of the State Controller (OSC), with approval by the Office of the Governor, governed the e-procurement system implementation.

But legislation enacted in 2004 now gives the SCIO authority. *North Carolina General Statute 147-33.72*, enacted in 2004, requires state agencies to seek the SCIO's approval for all information technology projects that exceed $500,000 and states:

> All contracts between a State agency and a private party for information technology projects shall include provisions for vendor performance review and accountability. The State CIO may require that these contract provisions include monetary penalties for projects that are not completed within the specific time period or that involve costs in excess of those specified in the contract. The State CIO may require contract provisions requiring a vendor to provide a performance bond.

The legislation does not require the SCIO to include penalties for nonperformance in the contract, require a performance bond from the vendor, or transfer contract risks to the vendor. However, the SCIO now has the authority to ensure that information technology project contracts terms and conditions protect the interest of the State and hold vendors accountable.

Recommendation: ITS should ensure that contracts for information technology services are negotiated and managed effectively. ITS should ensure vendors are held accountable for their estimates, contract risks are properly managed, and contract terms are negotiated to protect the interests of the State on all information technology projects that exceed $500,000.

2. E-PROCUREMENT BENEFIT ANALYSES ARE INACCURATE

The Division of Purchase and Contract (P&C) at the Department of Administration reported inaccurately that the e-procurement system had saved the State $127 million through December 2003 (report issued April 2004) and $347 million through December 2005 (report issued June 2006). The savings estimates are flawed because P&C did not ensure that Accenture, LLP (Accenture or vendor) used a statistically valid methodology or followed the prescribed measurement methodology to prepare the benefit analyses. The vendor-prepared benefit analyses are not statistically valid; therefore, the true amount of savings the State has experienced by using the e-procurement system is unknown.

Vendor Methodology for Saving Estimates Were Not Statistically Valid

P&C did not review the vendor-prepared benefit analyses to determine whether Accenture had based its $127 million and $347 million estimates of e-procurement savings on a statistically valid methodology before reporting the estimates. The vendor's analyses and estimated savings are flawed because the vendor estimated total e-procurement system savings based on samples of e-procurement purchases that were not representative of the total population of purchases. Specifically, the samples were too small, were not broad enough, and were not randomly selected.

The samples Accenture used for the 2004 and 2006 benefit analyses were too small. Accenture only reviewed 45 items for the 2004 analysis and 56 items for the 2006 analysis. In 2001, the State paid Hubbard Decision Research to conduct an "independent study to primarily determine a baseline for measuring operating savings resulting from the streamlining of the purchasing process" – an expected result of implementing the e-procurement system. In the report titled "The North Carolina E-Procurement Baseline Report", Hubbard Decision Research recommended that the State use a sample size of a least 500 to accurately measure price savings that the State might experience due to the e-procurement system. Using a smaller sample size increased the risk that the total e-procurement savings estimated from the sample would be significantly different from the savings that would have been identified if all e-procurement purchases had been analyzed.

Also, the samples that Accenture used for the 2004 and 2006 benefit analyses were not broad enough. State e-procurement purchases included goods and services. However, 100% of the items Accenture selected for the 2004 and 2006 analyses were goods. Furthermore, about 77% of the costs reviewed for the 2006 benefit analysis consisted of amounts paid for buses. The savings on buses accounted for 83% of the total savings identified in the 2006 benefit analysis. By using a sample that did not include all of the important characteristics of the population, Accenture increased the risk that the total e-procurement system savings estimated from the sample would be significantly different from the savings that would have been identified if purchases of goods and services had been analyzed.

Lastly, the samples that Accenture used for the 2004 and 2006 benefit analyses were not randomly selected to avoid selection bias. To ensure that the sample represented the population of e-procurement purchases, Accenture should have used a selection method that would have given each item in the population of goods and services an equal opportunity of being selected. However, Accenture created its 2004 and 2006 samples by selecting only goods purchased through the e-procurement system that matched an initial test sample created by Hubbard Decision Research in 2001. Accenture did not select any service items for its sample. By using a non-random sample selection method, Accenture increased the risk that the sample was biased and did not accurately reflect the population of e-procurement purchases.

Vendor Did Not Follow Prescribed Methodology

P&C did not review the vendor-prepared benefit analyses to determine whether Accenture had followed the prescribed methodology for e-procurement savings measurement before reporting $127 million and $347 million in savings from the e-procurement system.

In "The North Carolina E-Procurement Baseline Report" referenced above, Hubbard Decision Research prescribed a methodology the State could use to determine e-procurement system cost savings. The report described the methodology:

> Price savings due to e-procurement can be measured with a method similar to the Consumer Price Index (CPI). This method, called the State Price Index (SPI), samples actual purchases and compares them to benchmarked prices. The purpose of the SPI is to develop a baseline for the prices paid for goods and services. It is designed to account for variation in price, which may not be related to e-procurement. This is so that any price reductions due to e-procurement can be isolated.

However, Accenture did not follow the Hubbard Decision Research methodology. In March 2009, the auditors contacted Hubbard Decision Research to obtain an expert opinion on the vendor-prepared benefit analyses. The President of Hubbard Decision Research made the following five points:

- First and foremost, the calculation should be independent and done by someone qualified to conduct statistical analysis. The current analysis was performed by the very same vendor that would be assessed by the analysis, and several missing and misunderstood steps indicate that they were not knowledgeable in statistical methods.

- The original model was a statistical simulation that computes a confidence range, not an exact point. The reported savings of $347 million is not reported with any error or confidence interval. This indicates that basic steps in the prescribed statistical analysis were not performed.

- The number of product/service samples is less than one fifth of what was recommended for the market basket.

- Sources of publically-quoted baseline prices are required for all product purchases and yet are mentioned for only thirteen items – unlike the sample calculations provided. The items that made up a majority of the purchase volume in this small sample (the school buses) had no published baseline price.

- Finally, the value of the information for this critical performance metric – the SPI – should not be understated. This is a system that handles a large volume of transactions and the single most important benefit, the alleged price savings, needs to be measured rigorously. This single metric may have significant bearing on key decisions such as whether to renew the contract with the current vendor, and it should be the basis for further improving price savings.

Actual E-Procurement System Savings is Unknown

The vendor-prepared benefit analyses are not statistically valid; therefore, the true amount of savings the State has experienced by using the e-procurement system is unknown.

Recommendation: The State should not rely on the currently reported estimated savings to make decisions about the e-procurement system. P&C should ensure that an independent third party knowledgeable in statistical methods performs all future e-procurement system benefit analyses.

3. TIME AND MATERIALS COSTS WERE NOT VERIFIED

The Office of Information Technology Services (ITS) did not perform procedures to verify that $5.2 million worth of Accenture, LLP (Accenture or vendor) time and materials charged for the E-Commerce Project Office and Statewide Portals Contract (Contract) were valid and accurate. By agreeing to pay for time and materials, the State assumed the risks that excessive or inappropriate time and materials costs could be charged to the projects due to inefficient operations or inaccurate record-keeping. The State also assumed the administrative burden for guarding against these risks.

Accenture billed the State for time and material costs incurred for developing the Statewide Web Portal, conducting due diligence for the e-procurement project, and establishing and supporting an E-Commerce Project Office. About 15 to 20 people worked on the projects, and the vendor's personnel time averaged 4,000 hours per month. ITS paid Accenture $5.2 million for time and materials based on invoices and supporting documentation that included a list of personnel who worked on the project and their accumulated hours.

However, vendor prepared documentation alone is not sufficient to verify that the individuals listed actually worked on the project, all of the hours were chargeable to the project, the hours were accurately recorded, materials were acquired at the best price, and materials charged to the State were actually used on the project. ITS did not perform verification procedures such as reviews of contractor employee time records, observation of contractor operation to verify that contractor employees are charging time appropriately, reviews of contractor purchases for reasonableness, and reconciliation of contractor purchasing documentation to the amounts billed by the contractor.

Management procedures should provide reasonable assurance that the State only pays for goods and services actually received and that goods and services are obtained economically. Because the State agreed to pay time and materials instead of setting a fixed price, additional procedures were necessary to verify Accenture's billed costs. The National Contract Management Association notes:

> A firm fixed priced contract provides for a price that is not subject to any adjustment on the basis of the contractor's cost experience in performing the contract. This contract type places on the contractor maximum risk and full responsibility for all costs and resulting profit or loss. It provides maximum incentives for the contractor to control costs and perform effectively and imposes a minimum administrative burden on the contracting parties.[11]

In a report[12] on federal purchasing, the Government Accountability Office (GAO) noted that time and materials contracts "constitute a high risk to the government." The report states:

> These contracts are considered high risk for the government because the contractor's profit is tied to the number of hours worked. Thus, the government bears the risk of cost overruns. Therefore the FAR [federal acquisition regulations] provides that appropriate government monitoring of contractor performance is required to give reasonable assurance that efficient methods and effective cost controls are being used.

For time and materials contracts, the GAO report notes that the contracting office is required to "include in the contract a ceiling price, which the contractor exceeds at its own risk, and any subsequent change in the ceiling price may be made only after the contracting officer determines that such a change is in the best interest of the procuring agency." The ceiling price, or "not-to-exceed" (NTE) clause, can help manage the risk of cost overruns. However, the government still assumes the risks of cost overruns because

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[11] Marlys Norby, Emmalyn Smith, and Ronald Smith. Guide to the Contract Management Body of Knowledge 2nd Edition. National Contract Management Association, 2004.
[12] Report No. GAO-09-579. Contract Management. U.S. Government Accountability Office, June 2009

the NTE clause does not guarantee that the contractor will complete the services within the ceiling price, only that the contractor will not exceed the ceiling price and will make a "good faith effort to meet government's needs within the ceiling price."

The State's Contract included a NTE clause. However, the NTE price did not remain fixed; it was adjusted twice when the initial contract period was extended. The NTE price was set at $3.5 million when the Contract was first established in May 2000. The NTE price was later increased to $4.9 million in November 2000 and to $5.3 million in January 2001. Therefore, it was still necessary to verify the Accenture's billed costs despite the inclusion of an NTE clause in the Contract.

Because ITS only reviewed vendor prepared documentation and approved invoices, ITS procedures were not sufficient to verify the accuracy or validity of the $5.2 million in time and materials costs that Accenture billed the State. Due to the lack of adequate verification procedures, ITS cannot be sure the State only paid for valid time and materials charges.

Recommendation: ITS should perform adequate procedures to ensure the accuracy and validity of contractor time and material invoices to protect the State's interests. Alternatively, ITS should use contract terms and conditions, such as fixed costs, that transfer the risk of labor and materials inefficiency to the contractor.

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AGENCY RESPONSE

State of North Carolina
Office of Information Technology Services

Beverly Eaves Perdue
Governor

Gerald L. Fralick
State Chief Information Officer

December 11, 2009

The Honorable Beth Wood
North Carolina State Auditor
20601 Mail Service Center
Raleigh, North Carolina 27699-0601

Dear Auditor Wood:

This letter is a joint response from the Office of Information Technology Services (ITS) and the Department of Administration (DOA) to the draft report of a performance audit received by our offices on October 9, 2009, entitled *E-commerce Project Office and Statewide Portals Contract*. ITS and DOA have the following specific comments regarding the three findings set out in the audit report:

1. Contract Was Not Negotiated and Managed Effectively

ITS and DOA agree that the initial contract with Accenture was deficient in several areas.

ITS has increased the number of attorneys on its staff to include several who are specially trained in software and Project implementation efforts. All contracts for ITS are now thoroughly reviewed, including terms and conditions.

Currently, responsibility for agency IT procurement and project implementation process is shared between ITS and the particular agency acquiring IT goods and services. ITS welcomes and supports recommendations to improve current processes, and IT procurement and vendor management across state government.

Regarding expiration of the current agreement and assumption by the State of operational responsibilities, the State would have received 12 months of vendor provided transition services at no additional costs under the contract ending February 2010 if the State had started transition by March 2009. This transition was not begun, although discussions with the vendor for transition were initiated in early 2008. Due to the need for significant software upgrades, a decision was made to delay starting the transition.

Hon. Beth Wood
December 11, 2009
Page 2

Recently, the contract with the vendor was amended to continue the current e-procurement system through December 2010. This amendment offers a significant advantage to the State in that it continues to require the vendor to maintain the same level of support while capping the vendor's monthly revenue. At the conclusion of the term, the State may still assume operational control of the system.

In addition, the vendor will provide the State with a spend analysis report to assist state officials in monitoring current procurement and forecasting future procurement needs for state agencies. ITS and DOA will verify the Accenture spend analysis and work with Accenture so that the documentation and data presented to the State are accurate and can be used in a repeatable process by the State for future analysis.

2. E-Procurement Benefit Analyses Are Inaccurate

The DOA's Division of Purchase and Contract agrees with the recommendation of the State Auditor to have an independent third party knowledgeable in statistical methods to perform all future e-procurement system cost-savings analyses. As a result of the auditor's recommendation, the calculated cost savings have been removed from the e-procurement website.

In 2001, the division made an effort to utilize the Hubbard Decision Research (HDR) Baseline Report in calculating the estimated cost savings. Instead of expending appropriated funds to hire a third party contractor to perform the analyses, we utilized the existing contract and the scope of services provided in it to have Accenture perform the analyses. Accenture's statistical analyses were performed under the direction and review of the E-Procurement Advisory Committee which consisted of finance and purchasing representatives from the state agencies, community colleges, K-12 local schools, universities and local governments.

3. Time and Materials Costs Were Not Verified.

The ITS e-Procurement Project Manager reviewed the accuracy of invoices through daily supervision and observation of the contractor personnel performing the work and a review of the project documentation records. The Project Manager worked closely with the contractor's employees and was able to observe their attendance and the work they performed; compare the work observed with that reported on the invoices; and measure that work against both the scheduled and actual project deliverables.

Records substantiating the Project Manager's review and documentation of the vendor time and materials are unavailable because the ITS retention schedule for project management records is three years from the completion of the project as approved by the Department of Cultural Resources, Office of Archives and History, the statutory authority for such matters. ITS welcomes any recommendations for improvements to its record-keeping procedures.

Hon. Beth Wood
December 11, 2009
Page 3

Please let us know if either agency can expand on anything in this letter or if you would like to discuss the audit findings or the e-procurement system in greater detail. We look forward to working with your office on audit and other matters during the coming years.

Sincerely,

Jerry Fralick
State Chief Information Officer

Britt Cobb
Secretary, Department of Administration

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ORDERING INFORMATION

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State of North Carolina
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