e-Procurement Study

e-Procurement Fee & Vendor Contract

Presented to

Senate Appropriations Committee on General Government and Information Technology
House of Representatives Appropriations Subcommittee on General Government
Joint Legislative Committee on Information Technology
Office of State Budget and Management

February 2014

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North Carolina
Department of Administration

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SUBJECT: Department of Administration Legislative Update on North Carolina e-Procurement Fee and Vendor Contract

DATE: February 2014

EXECUTIVE SUMMARY:

The North Carolina e-Procurement System has been operating within The Department of Administration's (DOA) Purchase and Contract Division (P&C) since October 2001. The source of funds for the implementation of the system is generated from a fee assessed on transactions generated by the e-Procurement System.

The fee was set in 2001 at 1.75% of the value of goods purchases only. The decision to assess the fee on goods only was based on the fact that the majority of statewide term contracts at the time were primarily for the purchases of goods. As strategic sourcing (a project started in June 2013) is further implemented, overall spend levels will decrease thus decreasing the e-Commerce fund income.

In order to recognize the efficiencies and cost savings that technology affords, P&C has set forth a strategic roadmap to assist with budget planning. This roadmap or guideline recognizes the need to advance the e-Procurement System through additional functionality or modules (i.e. single vendor registry, data analysis, e-Bidding and e-contract management). Additionally, functionality changes must contemplate (a) any future Enterprise Resource Planning (ERP) systems that DOA is considering and (b) any future system operational changes (i.e. bring in-house or continue to out-source).

The aforementioned technology enhancements needed to generate operating efficiencies require funding and the e-Commerce fund provides these funds. Based on the strategic roadmap, fund income needs to remain in the $17M-$19M range for the next 3-6 years. After projects are completed, it is very possible that a reduction in fund income would be advisable.

The Department of Administration presents the information below regarding the e-Procurement System and the e-Commerce fee that supports its operations as requested through Section 30.6.(a) of SL 2013-360.

LEGISLATIVE DIRECTIVE:

STUDY/E-PROCUREMENT FEE & VENDOR CONTRACT SECTION 30.6.(a)
The Department of Administration shall study the feasibility of reducing or eliminating the e-commerce fee authorized under G.S. 66-58.12(b). The e-commerce fee supports the E-Procurement System operated by the Department. By February 1, 2014, the Department shall report its findings to the Senate Appropriations Committee on General Government and Information Technology, House of Representatives Appropriations Subcommittee on General Government, Joint Legislative Committee on Information Technology, and Office of State Budget and Management. The report shall include the following:

(1) The current rate of the fee and how it was calculated.
(2) The current revenue generated from the fee by departmental users.
(3) The current breakeven point for the operation of the E-Procurement System.
(4) The requirements for the operation and administration of the E-Procurement System, including the term of any contract with an outside vendor for the management of the E-Procurement System.
(5) Total payments to vendors since the initiation of the E-Procurement System.
(6) Total State receipts since the initiation of the E-Procurement System.
(7) Information on E-Procurement Systems currently in operation in other states and within North Carolina, including an analysis of the advantages and disadvantages of each.
(8) The feasibility and cost of utilizing E-Procurement Systems under management by any State institution.
(9) The feasibility of eliminating the fee supporting the E-Procurement System, E-Commerce Fund (2514), and moving the administration of the E-Procurement System to General Fund Support, including any cost savings to agencies as a result of vendors not assessing the fee on goods purchased through the System.
(10) The feasibility of reducing the fee by assessing the fee on goods and services only.
(11) The potential for savings from training State employees to operate and maintain the System.

FINDINGS:

(1) The current rate of the fee and how it was calculated.

The State of North Carolina's e-Procurement System is supported through a public/private partnership utilizing a self-funding business model which requires no cash investment by the State. Accordingly, no State appropriated funds have been required to implement and operate the system since development began in February 2001.

Prior to the initiation of the e-Procurement Project, a due diligence study was conducted by the Department of Administration (DOA), the Office of Information Technology Services (ITS) and the Office of the State Controller (OSC). The due diligence study evaluated funding models and software solutions for an e-Procurement System. Through that study, the State decided to implement Ariba Buyer software and to leverage a self-funding business model as allowed by G.S. 66-58.12(b). The decision to assess the fee on goods only was based on the fact that the majority of statewide term contracts at the time were primarily for the purchases of goods.

The 1.75% e-Procurement transaction fee, was the result of a due diligence effort that considered the cost of services to design, develop, implement and operate the e-Procurement System, including the cost to purchase and maintain hardware and software needed for the system and for other supporting infrastructure costs such as project facilities.

Since the e-Procurement System went live in October 2001, the 1.75% fee has been charged on goods purchases made through the system, with limited exceptions that are individually approved by DOA.

(2) The current revenue generated from the fee by departmental users.

Table 1 below outlines the amount of e-Procurement fees collected annually since July 1, 2010. It also shows the state entities making the purchases through e-Procurement that generated the fees. These collections represent 99.45% of the total amount billed to vendors for the fee during the same time period. Appendix 1 includes total e-Procurement transaction fees collected since system implementation in October 2001.

Table 1: e-Procurement System Transaction Fee Collected

Entity	FY11	FY12	FY13	FY14 (thru Dec)
State Agencies	$9,961,805	$10,076,274	$9,384,477	$5,491,932
Community Colleges	$2,631,515	$2,565,895	$2,649,941	$1,031,693
Local Education Agencies (LEAs)	$6,516,004	$7,271,741	$7,005,126	$3,209,572
Other (local government, universities)	$3,814	$1,603	$446	$465
TOTAL	**$19,113,138**	**$19,915,513**	**$19,039,990**	**$9,733,661**

(3) The current breakeven point for the operation of the e-Procurement System.

The e-Procurement fee supports both facets of the operation; that which is managed through a public/private partnership, and that which is managed by DOA.

The contract with the third party includes all operational support services to run the e-Procurement System, as well as some hardware, software and other direct operating costs. The FY14 fixed cost of that contract is $8,940,000, and FY15 and FY16 costs are also fixed at $8,880,000 annually.

The operational costs covered directly by DOA include hosting costs paid to ITS (e-Procurement System resides in the State's Eastern and Western Data Centers), as well as other hardware, software and other direct operating costs. The FY14 total of those costs is $12,098,784. An additional $5M-$7M is planned for technology improvement for the next several years.

Table 2 shows the revenues less the cost of operation. DOA has developed a strategic roadmap for the implementation of necessary technology tools to achieve cost savings and efficiency in how the State conducts business.

Table 2: e-Procurement System Operating Costs

Description	FY 11	FY 12	FY 13	FY 14 Budget
Fees Collected	**$19,468,819**	**$19,915,513**	**$19,598,760**	**$19,278,784**
Operating Costs	**$13,398,845**	**$11,496,404**	**$10,492,412**	**$12,098,784**
Third Party	$12,901,489	$10,354,428	$9,304,090	$10,766,906
Software	$108,874	$679,509	$550,585	$521,443
ITS Hosting	$240,545	$323,505	$432,899	$568,687
Employees	$147,937	$135,634	$204,787	$228,678
Other		$3,328	$51	$13,070
Transfer to General Fund	**-**	**$4,483,526**	**$2,470,642**	**$6,330,244**
Net Cash Flow	**$6,069,974**	**$3,935,583**	**$6,635,706**	**$849,756**

More detailed information appears in Appendix 2.

(4) The requirements for the operation and administration of the e-Procurement System, including the term of any contract with an outside vendor for the management of the e-Procurement System.

The strategic roadmap considers current and future requirements for implementing best practices and state of the art technology tools. DOA is currently implementing a strategic sourcing methodology designed to significantly reduce the costs of goods and services purchased by the State. In order to realize immediate cost savings and ensure the long term sustainability of the benefits of strategic sourcing, the utilization of resources including personnel, financial and technology is essential.

Therefore, the decision was made to proceed with a short term operations contract extension with a third party while DOA and other stakeholders plan for the successful implementation of an ERP system and an enhanced e-Procurement platform. This short term extension will afford the State time to properly plan for the best operations solution which may or may not include a third party.

The current contract with the third party to maintain and support operations of the e-Procurement System extends through December 31, 2016, and includes three one-year extension options that can be exercised at the State's discretion as needed. The current amount paid to the third party is $740,000 per month.

(5) Total payments to vendors since the initiation of the e-Procurement System.

From February 2001 through December 2013, the State has paid a total of $149,309,523 for implementing and operating the e-Procurement System. See Table 2 for breakdown. Other payments to vendors include the direct payments to hardware and software vendors and to ITS for hosting services.

(6) Total State receipts since the initiation of the e-Procurement System.

From February 2001 through December 2013, the State has collected a total of $188,295,627 in e-Procurement transaction fees. Of that total, $149,309,523 has been paid to the third party and $38,986,104 has remained with the State. Those remaining funds with the State have been used for the e-Procurement System operating costs paid directly by the State as outlined in Table 2, have been transferred or allocated as directed by the General Assembly, have been used to fund other procurement initiatives undertaken by DOA or ITS, or remain within the designated fund. Future use of the remaining fund balance will be for implementing the aforementioned strategic roadmap. [See Appendix 1.]

(7) Information on e-Procurement Systems currently in operation in other states and within North Carolina, including an analysis of the advantages and disadvantages of each.

During Phase I and Phase II of the procurement transformation study (2010), the State evaluated Tier 1 and mid to small tier vendors with public sector experience. They were evaluated against the State's key criteria for e-Procurement System replacement solutions as shown in Appendix 3. Based on that analysis as well as total cost of ownership considerations the State elected to upgrade the existing e-Procurement System. It was also determined vendor management process and tools, reporting analytics, electronic bidding, and contract management should be implemented to improve efficiency and effectiveness.

There are a variety of e-Procurement solutions in use today. More detailed information appears in Appendix 4-6.

- Ariba Buyer: North Carolina, Florida, Virginia, and the District of Columbia.
- PeopleSoft ERP: Ohio, Kansas, New York, and Georgia.
- SAP ERP: Pennsylvania
- Periscope: Arizona, Massachusetts (being implemented).

After considering eight potential e-Procurement Systems, DOA decided to upgrade the existing system rather than replace it. This decision was based on a number of factors, including the cost of migration. The Ariba Buyer system is consistently ranked as best-in-class; none of the other systems considered (including PeopleSoft and SciQuest) offered a significant increase in functionality or ease-of-use; migration would not result in a savings in operational or software licensing costs; and migrating to another platform would require substantial expenditures for implementation and to retrain some 20,000 users across State government, 58 community colleges and more than 100 LEAs, as well as to develop interfaces with the various financial systems currently used by those entities, including NCAS. [See Appendix 7 and 8.]

(8) The feasibility and cost of utilizing e-Procurement Systems under management by any State institution.

In addition to the North Carolina e-Procurement System used by State agencies, the community colleges and many LEAs, three other e-Procurement Systems have been implemented by State government entities: (1) North Carolina State University has implemented the e-Procurement module of the PeopleSoft Enterprise Resource Planning (ERP) Financial System; (2) UNC-Chapel Hill is currently in the process of migrating from custom financial application developed in-house to the PeopleSoft system, and transition to the PeopleSoft e-Procurement module is in process; and (3) the UNC General Administration has adopted SciQuest for use as the e-Procurement System at the remaining 14 institutions in the UNC system. [See Appendix 10 and 11.]

All three systems—Ariba Buyer, PeopleSoft and SciQuest—are solid e-Procurement platforms, with easy-to-use web-based interfaces, and all have generally similar functionality and capabilities. All three are generally recognized as superior e-Procurement Systems with a relatively large installed base, adequate financial resources and forward-thinking R&D efforts. Industry experts agree that any of the three is a satisfactory choice for an entity seeking an e-Procurement platform for the foreseeable future. The Gartner Group, recognized as a top

source for evaluation and analysis of enterprise IT systems, in recent years has rated all three among its top rated e-Procurement Systems for the vendor's completeness of vision and its ability to execute on that vision.

The e-Procurement System as currently implemented for the State of North Carolina has numerous components. Appendix 9 highlights the complexity of the overall System. Boxes in yellow represent components of the e-Procurement System; boxes in green represent the systems with which e-Procurement interfaces. The core Ariba Buyer software is tightly integrated with the State's NCAS accounting system for pre-encumbrance and encumbrance processing. An integration infrastructure was also implemented in 2003 and is used to interface e-Procurement with the community college Colleague systems, the four financial system software solutions used across all 115 LEAs, and the DOT SAP ERP system. Replicating these interfaces with an alternate e-Procurement System would require significant effort and cost.

As the State currently evaluates its future for ERP, the Department of Administration will consider the feasibility of leveraging the overall ERP platform for e-Procurement processing in the future. DOA has aligned the contract term for operational support of the existing e-Procurement System to provide ongoing stability of operations until such time as the State decides to make a more significant change to its system(s) used for procurement transaction processing. Any other changes in the meantime would generate significant transition costs and would present unnecessary risks to a system that currently processes over $3B in annual spending across all state agencies, community colleges and local education agencies.

(9) The feasibility of eliminating the fee supporting the e-Procurement System, E-Commerce Fund (2514), and moving the administration of the e-Procurement System to General Fund Support, including any cost savings to agencies as a result of vendors not assessing the fee on goods purchased through the System.

When the e-Procurement Project began in 2001, the State amended all state term contracts to include the 1.75% e-Procurement fee. During that transition, no prices were raised by vendors for items on the state term contracts. In addition, the fee has been assessed on purchase orders for goods that are not covered by state term contract, but in many cases are competitively bid.

While it is feasible to eliminate the fee, as stated previously, the fee has been calculated to fund the operation and maintenance of the system, related costs and to provide funding for the implementation of additional functionality that will enhance the effectiveness and efficiency of the procurement function across the state. The amount of funding required to maintain operations and implement enhancements is $17M-$19M per year for at least the next three years.

Options to consider include:

1. **No change to the existing fee structure** – This option maintains self-funding of e-Procurement System operations and maintenance at the required $17M-$19M level and generates additional revenue that can be reinvested into the priority procurement technology projects that DOA has identified to improve the overall procurement function within the State, such as an enterprise reporting and analytics capability and electronic bidding functionality.

2. **Reduction in percentage of the existing fee structure** – This option maintains some degree of self-funding of the e-Procurement System operations and maintenance and lowers the e-Commerce transaction fee assessed on purchase orders for goods to vendors through the e-Procurement System, but would require an appropriation to offset the required $17M-$19M for the cost of operating and maintaining the system and to fund priority procurement technology projects.

3. **Eliminate e-Procurement fee and fund e-Procurement from General Fund** – To avoid interruption of a critical enterprise business application, this option would require a General Fund appropriation of $17M-$19M for at least the next three years for e-Procurement System operations and maintenance and to fund priority procurement technology projects.

(10) The feasibility of reducing the fee by assessing the fee on goods and services only.

This option allows e-Procurement System operations to remain self-funded, lowers the e-Commerce transaction fee assessed on purchase orders for goods placed with vendors through the e-Procurement System, and introduces a new e-Commerce transaction fee for purchase orders to vendors selling services to the State through the e-Procurement System. The reduction in the percentage of the fee may generate savings in the amounts paid by State entities for goods purchased through the System; however the expansion of the fee to services may generate cost increases in the amounts paid by State entities for services purchased through the System. This option may lower or eliminate the additional revenue that could be reinvested into priority procurement projects that DOA has identified to improve the overall procurement function within the State.

(11) The potential for savings from training State employees to operate and maintain the System.

In early 2009, the Office of Information Technology Services (ITS) and the Department of Administration (DOA) initiated a joint project to examine the feasibility of moving some or all of the operational responsibility for the e-Procurement system to the State upon expiration of the operations contract in early 2010. This review and analysis led to a report in June 2009 estimating moving technical operations support to the State would cost approximately $8 million in start-up expenses, including infrastructure and equipment purchases, a major software upgrade and license fees, personnel salaries and training costs. The report recommended that the transition of technical operations be completed over a two-year period (including the software upgrade), with the current contractor continuing, during that interim, to perform user and vendor help-desk duties and to handle the fee billing and collection process. The report estimated that, upon completion, the State may or may not save money by maintaining and operating the system in-house.

The recommendation was not implemented, principally due to the lack of available funds for allocation to start-up costs. At the same time, ITS and DOA agreed that all internal accounting and operational oversight responsibility would be transferred from ITS to DOA, which was the principal user of the system and handled the daily interactions and coordination with the vendor.

Risks identified for the transition to in-house maintenance and operations of the system, as outlined in the State's final presentation, included the following:

- Unable to recruit, hire, and leverage ITS technical and professional procurement resources as dictated by the transition plan
- Unable to fund the defined transition program at the necessary levels from the e-Procurement fee
- Unable to complete the technical platform transition to State in 2 years
- Integrated customers and other third parties that will be required to participate and assist in the transition and upgrade activities are unable to do so in a timely or effective manner
- State unable to agree on the organizational design, governance scheme, or transition team participants
- Unable to negotiate a contract with Accenture that meets the State's needs, wants, or expectations for the defined transition plan and/or on-going e-Procurement operations.
- Costs and availability of other assets to include space, furniture, computers, network access, etc.

END OF REPORT

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APPENDIX 1

e-Procurement System Transaction Fee Collected February 2001 through December 2013						
Year	**State Agency**	**Community Colleges**	**Local Education Agency**	**Local Government /Other**	**University**	**Total**
Feb 2001 - June 2002	$576,659	$781	$1,047	$1,450	$0	$579,937
FY2003	$4,112,682	$85,417	$97,557	$2,307	$0	$4,297,963
FY2004	$7,287,763	$202,002	$392,848	$1,484	$0	$7,884,096
FY2005	$7,100,799	$287,279	$3,876,178	$2,439	$0	$11,266,695
FY2006	$9,016,951	$1,221,147	$7,015,791	$2,084	$0	$17,255,973
FY2007	$10,805,313	$1,665,236	$7,580,150	$46,161	$0	$20,096,859
FY2008	$11,103,636	$1,706,872	$7,443,217	$38,851	$13,392	$20,305,968
FY2009	$11,507,561	$1,873,953	$8,103,317	$1,796	$27,926	$21,514,553
FY2010	$8,304,598	$1,965,075	$6,995,741	$1,943	$23,924	$17,291,280
FY2011	$9,961,805	$2,631,515	$6,516,004	$1,756	$2,058	$19,113,138
FY2012	$10,076,274	$2,565,895	$7,271,741	$1,603	$0	$19,915,513
FY2013	$9,384,477	$2,649,941	$7,005,126	$446	$0	$19,039,990
FY2014 (6 months)	$5,491,932	$1,031,693	$3,209,572	$465	$0	$9,733,661
Grand Total	**$104,730,449**	**$17,886,807**	**$65,508,287**	**$102,784**	**$67,299**	**$188,295,626**

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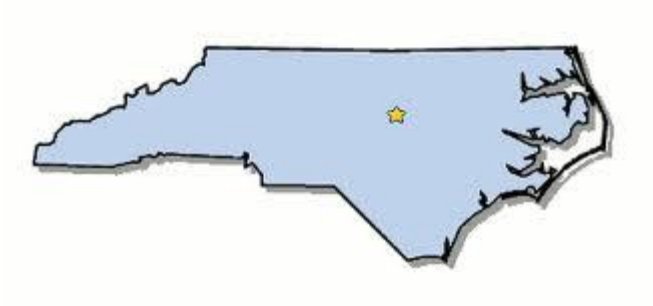
APPENDIX 2

e-Procurement Fee Cash Flow								
Description	**FY 10**	**FY 11**	**FY 12**	**FY 13**	**FY 14 Budget**	**FY 15 Plan**	**FY 16 Plan**	**FY 17 Plan**
BEGINNING CASH BALANCE	**$0.00**	**$5,384,604.00**	**$11,454,578.00**	**$11,373,955.00**	**$18,009,661.00**	**$11,679,417.00**	**$2,507,874.00**	**$1,022,874.00**
Fees Collected	**$11,733,014.00**	**$19,468,819.00**	**$19,915,513.00**	**$19,598,760.00**	**$19,278,784.00**	**$19,000,000.00**	**$17,000,000.00**	**$17,000,000.00**
Operating Costs	**$6,348,410.00**	**$13,398,845.00**	**$11,496,404.00**	**$10,492,412.00**	**$12,098,784.00**	**$11,860,000.00**	**$11,360,000.00**	**$11,360,000.00**
Third Party	$6,193,313.00	$12,901,489.00	$10,354,428.00	$9,304,090.00	$10,766,906.00	$10,500,000.00	$10,000,000.00	$10,000,000.00
Software	$63,358.00	$108,874.00	$679,509.00	$550,585.00	$521,443.00	$525,000.00	$525,000.00	$525,000.00
ITS Hosting	$91,446.00	$240,545.00	$323,505.00	$432,899.00	$568,687.00	$600,000.00	$600,000.00	$600,000.00
Employees	$0.00	$147,937.00	$135,634.00	$204,787.00	$228,678.00	$230,000.00	$230,000.00	$230,000.00
Other	$293.00		$3,328.00	$51.00	$13,070.00	$5,000.00	$5,000.00	$5,000.00
Transfer to General Fund	**$0.00**	**$0.00**	**$4,483,526.00**	**$2,470,642.00**	**$6,330,244.00**	**$7,476,543.00**	**$0.00**	**$0.00**
Available Cash Flow	**$5,384,604.00**	**$11,454,578.00**	**$15,390,161.00**	**$18,009,661.00**	**$18,859,417.00**	**$11,342,874.00**	**$8,147,874.00**	**$6,662,874.00**
Projects	**$0.00**	**$0.00**	**$4,016,206.00**	**$0.00**	**$7,180,000.00**	**$8,835,000.00**	**$7,125,000.00**	**$4,400,000.00**
Ariba Upgrade			$3,979,810.00			$4,000,000.00	$2,000,000.00	$0.00
Hardware Upgrades			$36,396.00					
Training					$150,000.00	$200,000.00	$200,000.00	$200,000.00
e-Sourcing Wave 1					$2,800,000.00	$0.00	$0.00	$0.00
e-Sourcing Wave 2					$675,000.00	$0.00	$0.00	$0.00
e-Sourcing Wave 3					$2,200,000.00	$0.00	$0.00	$0.00
DOA SAP ERP Implementation/Maintenance					$1,200,000.00	$1,200,000.00	$1,200,000.00	$1,200,000.00
e-Commerce Enhancement/Web Design					$95,000.00	$0.00	$0.00	$0.00
e-Sourcing						$3,375,000.00	$1,725,000.00	$0.00
Architecture Planning					$60,000.00	$60,000.00	$0.00	$0.00
e-Procurement Ops Planning/Implementation							$2,000,000.00	$3,000,000.00
Other								
ENDING CASH BALANCE	**$5,384,604.00**	**$11,454,578.00**	**$11,373,955.00**	**$18,009,661.00**	**$11,679,417.00**	**$2,507,874.00**	**$1,022,874.00**	**$2,262,874.00**

APPENDIX 2

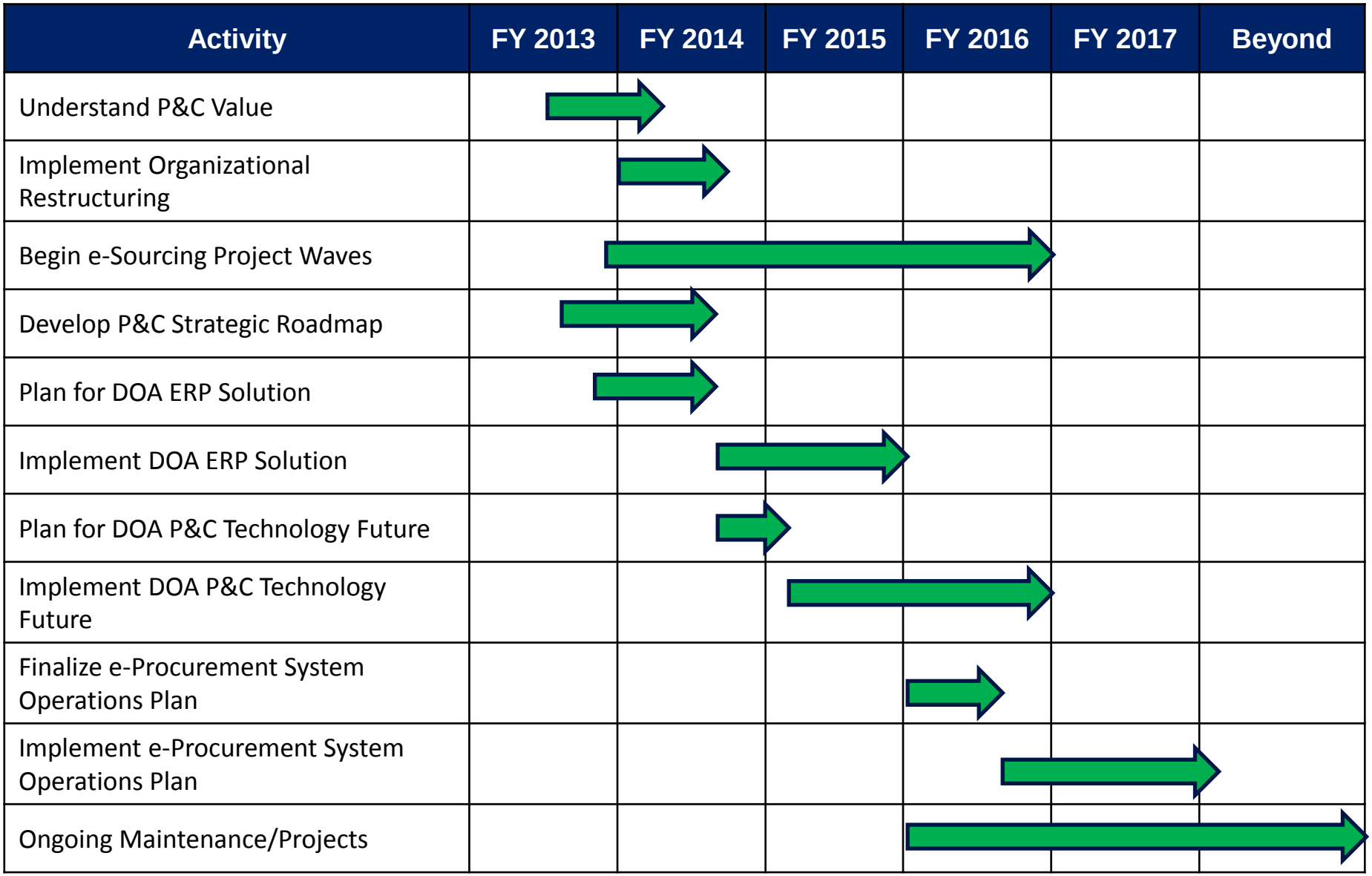


NC Purchasing and Contracts Strategic Roadmap

February 2014

PLANNING

Activity	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	Beyond
Understand P&C Value						
Implement Organizational Restructuring						
Begin e-Sourcing Project Waves						
Develop P&C Strategic Roadmap						
Plan for DOA ERP Solution						
Implement DOA ERP Solution						
Plan for DOA P&C Technology Future						
Implement DOA P&C Technology Future						
Finalize e-Procurement System Operations Plan						
Implement e-Procurement System Operations Plan						
Ongoing Maintenance/Projects						



APPENDIX 2

P&C Value

1. In place today:
2. Work in process:
3. New initiative:
4. Agency activity:

Key Criteria for Buying Tool Selection

APPENDIX 3

The Key Criteria included below was developed to provide a foundation for evaluating potential Buying Tool solutions. We recognize that a State Business Infrastructure Study for the State (Session Law 2001-491) was developed and accepted by the General Assembly and reflected a long-term vision including financial and procurement components that were considered in the final recommendation.

A. The implementation of the solution must work to minimize total cost of ownership for the State.

B. Technology is a key enabler of the State's strategic procurement initiatives. The State should focus our effort and resources in areas where requirements are not currently being met.

C. Because of the broad user base of this application, the State wishes to leverage all its existing technology to the fullest extent possible.

D. The State should strive to provide a solution that maximizes usability (user friendliness and performance) for all participants and minimizes technology change management for end users.

E. The adopted solution must be able to meet public sector and North Carolina specific requirements, including support of technical validation, internal controls and compliance.

F. The State should adopt technology solutions that are proven at scale, reflective of NC transaction, data, user, and vendor volumes, as well as related cost impacts to the State.

G. The adopted solution should maintain current level of participation and allow for expansion, including other statutorily allowed entities (e.g. universities, local education authorities, and municipalities).

H. The adopted solution must provide the flexibility to expand functional scope of E-Procurement (e.g. invoice processing), and to provide integrated capabilities with Sourcing tools, Contract Management and Vendor Management.

I. The solution must support information exchange with other initiatives supporting business transparency such as NC OpenBook.

J. The State should select established and financially stable technology providers and implement solutions that are viable for 10+ years.

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APPENDIX 4

Other e-Procurement Systems

State	Requisition to PO Processing	Invoice Processing	Electronic Bidding	Spend Reporting/Analytics	Electronic Catalogs	Procurement Fees	Managing Agency	SI/AO Vendor Support	Hosted (on-site) vs SaaS	Notes
Arizona	Periscope BuySpeed	Periscope BuySpeed	Periscope BuySpeed	Periscope BuySpeed	Periscope BuySpeed	1% vendor fee for local government entities	Department of Administration	Periscope Holdings	SaaS	Name: procureAZ
California	Oracle PeopleSoft	Oracle PeopleSoft	BidSync	BidSync	BidSync	N/A	State Controller State Treasurer Department of Finance Department of General Services	Accenture	Oracle Oracle PeopleSoft- Hosted BidSync - SaaS	Year two of a five year implementation
Connecticut	Oracle PeopleSoft	Oracle PeopleSoft	Homegrown	Oracle PeopleSoft	Oracle PeopleSoft	N/A	Department of Administrative Services Office of the State Comptroller (ERP)	Unknown	All hosted	Name: Core-CT (ERP)
Florida	Ariba Buyer	Ariba Buyer	Ariba Sourcing	Ariba Analytics	Ariba Buyer	1% on state agency purchases and 1% on all state term contract purchases	Department of Management Services	Accenture	All hosted	Name: MyFloridaMarketPlace (MFMP)
Georgia	Oracle PeopleSoft	Oracle PeopleSoft	Oracle PeopleSoft	N/A	SciQuest	Vendor fee (unknown value)	Department of Administrative Services	SciQuest (Catalogs)	PeopleSoft - Hosted SciQuest - SaaS	Name: eSource (sourcing) Name: Team Georgia Marketplace (catalogs)
Illinois	Unknown	Legacy	N/A	Unknown	N/A	Unknown	Chief Procurement Office	Unknown	Unknown	
Indiana	Oracle PeopleSoft	Oracle PeopleSoft	Oracle PeopleSoft	Unknown	Oracle PeopleSoft	N/A	Department of Administration	Unknown	All hosted	
Kentucky	CGI Advantage	CGI Advantage	CGI Advantage	CGI Advantage	CGI Advantage	N/A	Finance and Administration Cabinet	Unknown	All hosted	
Maryland	Unknown	Oracle PeopleSoft	Periscope BuySpeed	Unknown	Periscope BuySpeed	Vendor fee (unknown value)	Department of General Services	Periscope Holdings	PeopleSoft - Hosted Periscope - SaaS	Name: eMaryland Marketplace
Massachusetts	Periscope BuySpeed	Legacy (MMARS)	Periscope BuySpeed	Periscope BuySpeed	Periscope BuySpeed	1% on all purchases from statewide contracts	Executive Office for Administration and Finance	Periscope Holdings	SaaS	Implementation in process
Michigan	Periscope BuySpeed	Unknown (C&PE)	Periscope BuySpeed	Periscope BuySpeed	Periscope BuySpeed	Unknown	Department of Technology, Management and Budget	Periscope Holdings	SaaS	Name: Buy4Michigan Implementation in process
Minnesota	Oracle PeopleSoft	Oracle PeopleSoft	Oracle PeopleSoft	Unknown	Oracle PeopleSoft	Agency fee (unknown value)	Department of Administration	Unknown	Unknown	
New Jersey	Legacy	Legacy	Legacy	Unknown	N/A	N/A	Department of the Treasury	Unknown	Unknown	
New York	Oracle PeopleSoft	Oracle PeopleSoft	N/A	Oracle OBIEE	Bid in Process	N/A	Office of the State Comptroller Division of the Budget Office of Information Technology Services	IBM	All hosted	Name: SFS (ERP) Spend reporting capabilities in process
North Carolina	Ariba Buyer	Legacy	Legacy - Notifications Only	N/A	Ariba Buyer	1.75% on good purchased through the eProcurement System	Department of Administration	Accenture	All hosted	
Ohio	Oracle PeopleSoft	Oracle PeopleSoft	Oracle PeopleSoft Strategic Sourcing	Oracle Enterprise Performance Management (EPM)	SciQuest	N/A	Department of Administrative Services Office of Budget and Management	Accenture	All hosted	Name: Ohio Administrative Knowledge System (OAKS) (ERP) Ohio Purchasing Marketplace
Pennsylvania	SAP	SAP	SAP	SAP	SAP	N/A	Department of General Services	N/A	All hosted	Name: PA eMarketplace
Tennessee	Oracle PeopleSoft	Oracle PeopleSoft	Oracle PeopleSoft	Unknown	Oracle PeopleSoft	N/A	Department of Finance and Administration	Unknown	All hosted	Name: Edison
Texas	Oracle PeopleSoft	Oracle PeopleSoft	Unknown	Unknown	TXSmartBuy (Unknown software)	1.5% on all purchases from statewide contracts	Comptroller of Public Accounts	N/A	N/A	Name: Centralized Accounting and Payroll/Personnel System (CAPPS) (ERP)
Virginia	Ariba Buyer	Oracle PeopleSoft	Ariba Sourcing	Unknown	Ariba Buyer	1% state agency and 1% vendor fees on eVa registered vendors (with cap)	Department of General Services	CGI	Ariba Supplier - SaaS	Name: eVA Fees temporarily reduced to .1% for state agencies and .75% for vendors Oracle PeopleSoft ERP implementation in process (does not impact eVA)
Washington	N/A	Legacy	N/A	N/A	N/A	Assortment of agency and vendor fees (depending on contract)	N/A	N/A	N/A	Fees not used for system funding
Wisconsin	Oracle PeopleSoft	Oracle PeopleSoft	Oracle PeopleSoft	Oracle OBIEE	SciQuest	N/A	Department of Administration	N/A	All hosted	Implementation (STAR project) began 1/6/14 Will go live on PeopleSoft Finance 7/1/15 SciQuest will go live for 10 contracts Feb. 2014

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Other State e-Procurement Information
Source: National Association State Procurement Officials 2013 Survey

APPENDIX 5

State	e-Procurement System?	e-Procurement System implementation year?	e-Procurement System an in-house solution?		Can agencies share documents during solicitation development in the e-Procurement System?	Can agencies "pool or aggregate" agency bid quantities in the e-Procurement System?	If applicable, which entities are required, permitted, or unable to use the e-Procurement System?						
				If "No", Vendor which assisted with e-Procurement solution.			Legislative Branch	Judicial Branch	Executive State Agencies	Higher Education	K-12 Schools	Local Governments	Political Subdivisions
Alabama	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alaska	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arizona	Yes	2008	No	Periscope Holdings	No	Yes	Permitted	Permitted	Required	Permitted	Permitted	Permitted	Permitted
Arkansas	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
California	Yes	2009	No	BidSync	Yes	No	Unable to	Unable to	Required	Unable to	Unable to	Unable to	Unable to
Connecticut	Yes	Home grown -- since 1998...enhancing ever since.	Yes		Yes	No	Permitted	Permitted	Permitted	Permitted	Permitted	Permitted	Permitted
Delaware	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
District of Columbia	Yes	ASMP 2004	No	Ariba	Yes	Yes	Unable to	Unable to	Required	Permitted	Unable to	Unable to	Unable to
Florida	Yes	2003	No	MyFloridaMarketPlace (ARIBA)	Yes	Yes	Permitted	Permitted	Required	Permitted	Permitted	Permitted	Permitted
Georgia	Yes	2006	No	PeopleSoft with SciQuest catalogs	No	No	Permitted	Permitted	Required	Required	Permitted	Permitted	Permitted
Hawaii	Yes	2005	No	SicommNet, Inc.	Yes	No	Permitted	Permitted	Required	Unable to	Permitted	Permitted	Permitted
Idaho	Yes	2002	No	Sicommnet	Yes	No	Permitted	Permitted	Permitted	Unable to	Unable to	Unable to	Unable to
Indiana	Yes	1999	Yes	PeopleSoft	N/A	N/A	Permitted	Permitted	Required	Permitted	Permitted	Permitted	Permitted
Iowa	Yes	2001 and 2010	No	CGI and SciQuest	N/A	N/A	Unable to	Unable to	Required	Unable to	Unable to	Unable to	Unable to
Kansas	Yes	2009	No	PeopleSoft	Yes	No	Permitted	Required	Required	Unable to	Unable to	Unable to	Unable to
Kentucky	Yes	1999	No	CGI/AMS	No	Yes	Permitted	Permitted	Required	Unable to	Unable to	Unable to	Unable to
Louisiana	Yes	ISIS AGPS 1995 and new SAP ERP system with pilot agency Nov. 2011	No	Informs ISIS and SAP ERP	Yes	Yes	Unable to	Unable to	Required	Unable to	Unable to	Unable to	Unable to
Maine	Yes	2007	No	CGI	No	No	Permitted	Permitted	Required	Unable to	Unable to	Unable to	Unable to
Maryland	Yes	2000	No	Periscope Holdings, Inc.	Yes	No	Permitted	Permitted	Permitted	Permitted	Permitted	Permitted	Permitted
Massachusetts	Yes	1997	Yes		No	No	Permitted	Permitted	Required	Permitted	Permitted	Permitted	Permitted
Michigan	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Minnesota	Yes	Implementation in process 2011-2013; responses relate to functionality of new system	No	Oracle PeopleSoft	Yes	Yes	Unable to	Permitted	Required	Permitted	Unable to	Unable to	Unable to
Mississippi	Yes		No		No	No	Permitted	Permitted	Permitted	Permitted	Unable to	Unable to	Unable to
Missouri	Yes	1998	No	CGI-AMS	No	No	Permitted	Permitted	Required	Unable to	Unable to	Unable to	Unable to
Montana	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nebraska	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nevada	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
New Hampshire	No	N/A, will hopefully be implementing before 2013! So I have answered the following question as it will be once implemented	No		Yes	Yes	Unable to	Permitted	Permitted	Unable to	Unable to	Unable to	Unable to
New York	No	We have an electronic email based Bidder Notification System, NYS is in the process of implementing a statewide financial management system (SFS)	Yes	BNS developed in-house, SFS is Oracle People Soft	N/A	N/A			Required				
North Carolina	Yes	2001	No	Ariba	Yes	No	Permitted	Permitted	Required	Permitted	Permitted	Permitted	Permitted
North Dakota	Yes	2006	Yes		No	No	Permitted	Permitted	Required	Permitted	Unable to	Unable to	Unable to
Ohio	Yes	2011	No	PeopleSoft Strategic Sourcing Module	Yes	No	Unable to	Unable to	Unable to	Unable to	Unable to	Unable to	Unable to
Oklahoma	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Oregon	Yes	Responses in this section will be based on ORPIN 1, procured in: 2004 *Note: Oregon is in the process of implementing ORPIN 2.0 through WSCA SaaS procurement (SciQuest solution)	Yes		Yes	No	Permitted	Permitted	Required	Permitted	Permitted	Permitted	Permitted
Pennsylvania	Yes	2007	No	SAP	No	No	Unable to	Unable to	Required	Unable to	Unable to	Unable to	Unable to
South Carolina	Yes	Don't know	No	SAP	Yes	No	Permitted	Permitted	Required	Permitted	Unable to	Unable to	Unable to
South Dakota	Yes	2002	No	ESM Solutions	N/A	Yes	Permitted	Permitted	Required	Permitted	Permitted	Permitted	Permitted
Tennessee	Yes	Went live 2009	No	Oracle PeopleSoft	Yes	Yes	Permitted	Permitted	Required	Unable to	Unable to	Unable to	Unable to
Texas	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Utah	Yes	2007	No	BidSync	No	No	Permitted	Permitted	Required	Permitted	Permitted	Permitted	Permitted
Vermont	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Virginia	Yes	CY2000	No		Yes	Yes	Permitted	Permitted	Required	Permitted	Permitted	Permitted	Permitted
Washington	No	N/A	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
West Virginia	Yes	1991	Yes		No	No	Unable to	Unable to	Permitted	Unable to	Unable to	Unable to	Unable to

APPENDIX 5

State	If applicable, what capabilities does your E-Procurement system provide? (Check all that apply):												
	Requisitions / Purchase Orders	Solicitation Development	Distribution of Solicitations	Vendor Registration	Receiving Bids and Proposals	Evaluation of Offers	Contract Award	Contract Administration	Contract Catalogs	Blanket Purchase Orders	Reverse Auction	Other (please list below)	If "Other", please specify:
Alabama	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alaska	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arizona	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Receiving/invoicing
Arkansas	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
California	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	No	
Connecticut	No	No	Yes	Yes	Yes	No	Yes	Yes	No	No	No	Yes	Our Homegrown procurement system offers what is checked above; our ERP (financial) system offers contract catalogs and purchasing systems.
Delaware	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
District of Columbia	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Acquisition Planning and Project Initiation
Florida	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	
Georgia	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No	No	
Hawaii	No	No	Yes	Yes	Yes	No	Yes	No	No	No	No	No	
Idaho	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	No	
Indiana	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	
Iowa	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	
Kansas	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No	No	No	No	
Kentucky	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Budgeting, payments, reporting
Louisiana	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	Yes	No	No	
Maine	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	
Maryland	No	No	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	
Massachusetts	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Solicitation notification, vendor profiles, vendor classifications, including small, minority- and women-owned businesses.
Michigan	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Minnesota	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	
Mississippi	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	
Missouri	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No	No	No	
Montana	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nebraska	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nevada	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
New Hampshire	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	No	
New York	Yes	No	No	Yes	No	No	No	No	No	No	No	No	
North Carolina	Yes	No	Yes	Yes	No	No	No	No	Yes	No	No	No	
North Dakota	No	No	Yes	No	No	No	No	No	No	No	No	Yes	State Contract information (not catalogs or shopping cards).
Ohio	No	No	No	No	Yes	No	Yes	No	No	No	Yes	No	
Oklahoma	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Oregon	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	
Pennsylvania	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	No	
South Carolina	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	
South Dakota	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	No	
Tennessee	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Auctions for asset sales, services procurement module, IT consultant needs, temporary services, etc. Inventory and asset control.
Texas	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Utah	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	No	Sole Source Postings/Notifications, Requests for Information, Multi-step sealed bidding, Requests for Quotations
Vermont	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Virginia	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	
Washington	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
West Virginia	Yes	No	No	Yes	No	No	No	No	No	No	No	No	

APPENDIX 5

State	If applicable, what is your system's functionality related to contractor performance? (Check all that apply):				If applicable, what types of transactions are processed through the state e-Procurement System? (Check all that apply):												If applicable, is the system integrated into the state financial system?	
					State			Small/Informal			Formal Bids			Formal Proposals				
	Does not maintain a record of contractor performance	Reporting by client agencies	Inviting vendors to comment on performance reports	Performance reports publicly available (i.e., available to persons other than internal system users)	All	Some	None	All	Some	None	All	Some	None	All	Some	None		If "Other", please specify:
Alabama	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Alaska	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arizona	Yes	No	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	
Arkansas	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
California	Yes	No	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	No	
Connecticut	No	No	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No	Yes	No	No	Other	In some aspects, i.e., Contract and vendor data imported into ERP system.
Delaware	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
District of Columbia	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	Yes Oracle EBS System
Florida	Yes	Yes	No	Yes	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	Yes	
Georgia	Yes	No	No	No	Yes	No	No	No	Yes	No	Yes	No	No	Yes	No	No	Yes	
Hawaii	Yes	No	No	No	No	No	No	No	Yes	No	No	Yes	No	No	Yes	No	No	
Idaho	Yes	No	No	No	No	Yes	No	No	Yes	No	Yes	No	No	Yes	No	No	No	
Indiana	No	No	No	No	Yes	No	No	No	Yes	No	No	Yes	No	No	Yes	No	Yes	
Iowa	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	No	
Kansas	No	Yes	No	No	No	Yes	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	
Kentucky	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	
Louisiana	Yes	No	No	No	Yes	No	No	No	Yes	No	Yes	No	No	Yes	No	No	Yes	
Maine	No	No	No	No	Yes	No	No	No	Yes	No	Yes	No	No	No	No	Yes	Yes	
Maryland	Yes	No	No	No	Yes	No	No	No	Yes	No	Yes	No	No	Yes	No	No	No	
Massachusetts	Yes	No	No	No	No	Yes	No	No	Yes	No	Yes	No	No	Yes	No	No	No	
Michigan	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Minnesota	Yes	No	No	No	No	Yes	No	Yes	No	No	Yes	No	No	No	Yes	No	Yes	
Mississippi	No	No	No	No	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes	Yes	
Missouri	No	No	No	No	Yes	No	No	No	Yes	No	Yes	No	No	Yes	No	No	Yes	
Montana	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Nebraska	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nevada	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
New Hampshire	Yes	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	No	Yes	No	Yes	
New York	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Other	The SFS being rolled out is the basis for our answers above.
North Carolina	No	Yes	No	No	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No	Yes	
North Dakota	No	No	No	No	No	No	Yes	No	Yes	No	Yes	No	No	Yes	No	No	Other	It is integrated into PeopleSoft ERP database for the bidders list and distribution of notices.
Ohio	No	No	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	
Oklahoma	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Oregon	Yes	No	No	No	No	Yes	No	Yes	No	No	Yes	No	No	Yes	No	No	Other	ORPIN 1.0: No ORPIN 2.0: Plans are to enable this function
Pennsylvania	Yes	No	No	No	Yes	No	No	No	No	Yes	No	Yes	No	No	Yes	No	Yes	
South Carolina	Yes	No	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	
South Dakota	No	No	No	No	Yes	No	No	No	Yes	No	Yes	No	No	Yes	No	No	Other	There is a basic level file transfer between the e-procurement system and state financial system that allows for requisition to purchase order creation between both systems.
Tennessee	No	No	No	No	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No	Yes	
Texas	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Utah	No	No	No	No	No	No	No	No	Yes	No	Yes	No	No	Yes	No	No	No	
Vermont	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Virginia	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	
Washington	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
West Virginia	No	Yes	No	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	

APPENDIX 5

State	If applicable, does the e-Procurement System utilize digital signatures?	If applicable, how is the e-Procurement funded?		If applicable, what commodity code system does your state use?	
			If "Other", please specify:		If "Other", please specify:
Alabama		N/A	N/A		
Alaska	N/A	N/A	N/A	NIGP	
Arizona	Yes	State Appropriation		NIGP	
Arkansas	N/A	N/A	N/A		
California	No	User/agency fee		UNSPSC	
Connecticut	Yes	Other	General Fund -- use of our own staff and MIS staff time.	UNSPSC	
Delaware		N/A	N/A		
District of Columbia	No	State Appropriation		NIGP	
Florida	No	Vendor fee		Other	Customized NIGP Codes
Georgia	Yes	User/agency fee		NIGP	
Hawaii	No	Vendor fee		NIGP	
Idaho	No	Vendor fee		NIGP	
Indiana	No	State Appropriation		UNSPSC	
Iowa	Yes	User/agency fee		NIGP	
Kansas	Yes	User/agency fee		UNSPSC	
Kentucky	Yes	State Appropriation		NIGP	
Louisiana	No	State Appropriation		UNSPSC	New ERP system uses UNSPSC (only one pilot agency) AGPS system uses NIGP. New vendor registration uses UNSPSC
Maine	No	State Appropriation		NIGP	
Maryland	No	State Appropriation	Vendor fee as well.	NIGP	
Massachusetts	Yes	Vendor fee		UNSPSC	
Michigan		N/A	N/A	NIGP	
Minnesota	Yes	Other	Combination of state appropriation and fees to user agencies	UNSPSC	
Mississippi	No	State Appropriation		NIGP	
Missouri	No	State Appropriation		NIGP	
Montana		N/A	N/A		
Nebraska	N/A	N/A	N/A	NIGP	
Nevada		N/A	N/A		
New Hampshire	Yes	State Appropriation		NIGP	
New York				UNSPSC	
North Carolina	No	Vendor fee		NIGP	
North Dakota	No	State Appropriation		NIGP	
Ohio	Yes	State Appropriation		UNSPSC	
Oklahoma		N/A	N/A	UNSPSC	
Oregon	Yes	State Appropriation		NIGP	
Pennsylvania	Yes	State Appropriation		UNSPSC	
South Carolina	Yes	State Appropriation		NIGP	
South Dakota	No	Vendor fee		NIGP	
Tennessee	No	State Appropriation		NIGP	
Texas		N/A	N/A	NIGP	
Utah	Yes	Other	Contract Rebates		Hybrid NIGP
Vermont		N/A	N/A		
Virginia	Yes	Other	Both Agency and Vendor Fee	Other	NIGP for buyers and UNSPSC for goods and services electronic catalogs
Washington	N/A	N/A	N/A	NIGP	
West Virginia	No	Vendor fee		NIGP	

ERP and eProcurement Systems

Introduction

Ongoing budget constraints, due to economic recession and other factors, have forced state governments to further identify effective strategies to manage spending, achieve savings, and use spend analysis tools to better understand and control the cost of government activities.

This National Association of State Procurement Officials (NASPO) research paper recognizes the importance of state central procurement offices having an effective solution for the issues and actions referenced above. This paper highlights state practices and key elements of existing solutions, presenting benefits and drawbacks, in order to guide the decision-making process for choosing an appropriate solution for your state's central procurement office. The audience for this paper is NASPO membership, public procurement managers and decision makers, Chief Information Officers, any procurement professionals directly affected by Enterprise Resource Planning (ERP) software and eProcurement implementations, and other interested parties.

Many organizations, including state and local governments, use traditional ERP systems to integrate their activities across their organizational structure. These organizations are familiar with the challenges of ERP implementation and maintenance. According to a 2012 survey of state and local government IT professionals[1] (subscribers to Government Technology magazine), conducted by the Center for Digital Government (CDG), more than half of respondents (53%) representing state and local governments have recently implemented ERP systems or are in the process of implementing one.

The Business Dictionary[2] defines ERP systems as "accounting oriented, relational database based, multi-module but integrated, software systems for identifying and planning the resource needs of an enterprise". The National Institute of Government Purchasing (NIGP) Dictionary of Terms, referenced in *NASPO's State and Local Government Procurement: A Practical Guide*[3], notes that an ERP system "may include finance, accounting, human resources, purchasing, inventory control and other activities" and deploying it is "generally an enterprise-wide process, involving analysis, replacement of legacy systems and the development of new work processes and procedures."

The term Vanilla ERP Software Solution, referred to as "vanilla implementations", are commercial off-the-shelf ERP systems that are minimally customized. They are software applications that are implemented as delivered by the vendor with no modifications to the source code, other than configuring the software with the buyer's data and values. In their 2000 study, "A taxonomy of ERP Implementation Approaches", Parr & Shanks[4] refer to this ERP implementation as the "least ambitious and least risky implementation approach", noting that it is "typically done on one site only, and the number of prospective system users is small (less than 100)". According to the same authors, a "vanilla implementation" means using ERP core functionality only, and aligning company processes to the ERP rather than customizing the system to reflect the organization business processes.

1 The Evolution of Human Resources and Finance Solutions in State and Local Governments (2012) Center for Digital Government. Retrieved from: http://forms.erepublic.com/gt-paper-step1-default?r=gt-paper-step2-workday&contentID=172471781

2 Business Dictionary. http://www.businessdictionary.com/definition/enterprise-resource-planning-ERP.html

3 NASPO State and Local Government Procurement: A Practical Guide. (2008). Lexington, KY: NASPO

4 Parr, A., & Shanks, G. A taxonomy of ERP Implementation Approaches. (2000) Proceedings of the 33rd Hawaii International Conference on System Sciences. Retrieved from: citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.98.3458&rep=rep1&type=pdf

The term Electronic Procurement (eProcurement), according to the definition from the NIGP *Dictionary of Terms*[5], means "conducting all or some of the procurement function over the Internet; it implies that point, click, buy, and ship Internet technology is replacing paper-based procurement and supply management business processes."

How do ERP and eProcurement Systems Address Procurement Principles?

One reason why state and local governments are implementing ERP and eProcurement systems more widely, as indicated by the CDG survey referenced above, is due to the systems' inherent support and encouragement of common principles of public procurement (and at the very least, the systems do not discourage these principles). Some of these principles include increasing transparency, achieving value and promoting competition, expanding the supplier base, maintaining financial controls and measuring performance, and promoting efficiency in workflow and approval authority. Each of these points is addressed below in more detail.

- *Increasing Transparency*
  Public procurement is an open process that can have a significant effect on the businesses and lives of people in the locality. Therefore, interested parties naturally seek information about the process, and the contract awards, proposals, pricing, etc. that are involved. ERP and eProcurement systems can increase transparency by making these documents and information more readily available in an accessible electronic format, rather than relying upon hardcopy documentation.

- *Achieving Value and Promoting Competition*
  Value can come in many forms, and one form is procuring "the right materials or services in the right quantity for delivery at the right time to the right place form the right source with the right service at the right price"[6]. The competitive process allows state and local central procurement offices to achieve value, and the use of ERP and eProcurement systems can enhance competition by making it fuller and more open - that is, making it accessible to any interested party with an Internet connection. ERP and eProcurement systems can be used to consolidate the procurement process into one portal, rather than having disparate procedures possibly spread across multiple teams or multiple policy manuals.

- *Expanding the Supplier Base*
  The public procurement concepts of open, fair, and equal access to business opportunities are greatly enhanced by ERP and eProcurement systems. With the on ramp to participate being an Internet connection, vendors are finding it easy to join and familiar, as the systems generally perform much like other commonly used online website systems. The outcome is that businesses find it easier to participate. This potential for an expanded supplier base can provide a real and direct effect on economic development. More businesses have the potential to get business, including small or historically disadvantaged businesses. All of which expands the role of public procurement as a powerful economic engine, directly contributing to larger socio-economic initiatives.[7]

- *Maintaining Financial Controls and Measuring Performance*
  The use of ERP and eProcurement systems creates an electronic repository for all procurement related data – financial or otherwise (for example, data on procurement processing time). Gathering data in a standardized method and accessing that data through reporting functions (available in many ERP and eProcurement systems) are powerful tools for any state or local central procurement office. These tools allow the office to review its procurement expenditures, and begin to address possible budget issues. They also allow the offices to review their internal practices and results, and better identify how to improve their own service delivery.

- *Promoting Efficiency in Workflow and Approval Authority*
  Many ERP and eProcurement systems include workflow processes that move procurement documents and actions from one person to another, as configured by the system user. This electronic flow can be more efficient than, for example, a paper-based process that requires those involved to be physically present in the office, reviewing a physical document that must be moved from person to person. Electronic procedures allow for

5 National Institute of Governmental Purchasing (NIGP) Public Procurement Dictionary of Terms. (2010). Herndon, VA: NIGP
6 NIGP CPPO Prep Guide, 2011 Edition, page 12.
7 Forrester. Presentation Supplier Enablement in eProcurement (March 2007)

instantaneous movement of information, and one can complete his or her role from any connected terminal. Additionally, governments are increasingly able to customize which steps are included in their systems, from requirements generation, to sourcing, to purchase, to payment, and beyond.

Discussing Pros and Cons of ERP and eProcurement Systems

Government entities are interested in finding better solutions to integrate their finance, accounting, human resources, purchasing, and other activities – and to lower their costs.

Literature research conducted for the purpose of this paper identified common complaints and difficulties experienced by organizations with ERP implementation as follows: high cost, lengthy duration of implementation, and requests to customize the ERP software due to business process changes. Results from the CDG survey noted above show that system integration is the most significant cost during an ERP implementation, increasing their expected cost with scope modifications and change orders. As noted in the above-mentioned Parr & Shank's study, one comprehensive implementation of an ERP took seven years and cost tens of millions of dollars.

One argument in favor of "vanilla implementations" is that they require no customization other than the configuration. Also, the maintenance services and future updates are more easily and quickly implemented. However, a study by Yick[8] titled "*Implementing Vanilla ERP Systems: Factors to Consider in Strategy, Business Alignment, and Customization*", presented to the Graduate School of the University of Oregon, notes that implementing vanilla ERP systems can be a very costly investment. They do not always meet the "information processing requirements of a given organization", often requiring organizational process changes or workarounds to conform to the ERP systems. According to Yick's literature research of studies published since 1998, the paper indicates that organizations turn to the implementation of vanilla ERP software solutions due to the high cost in maintaining and upgrading customized ERP systems.

System providers offer eProcurement as one of their more affordable services. In her article published in *Government Procurement*, Devine[9], a marketing professional of an eProcurement firm, indicates that a trend has emerged in the past years where state and local governments are choosing "leaner" solutions such as eProcurement in place of ERP systems to achieve savings and obtain immediate results.

Traditionally, ERP systems have focused on providing basic purchasing functionality such as requisitioning, ordering, receiving, and invoicing to meet the core financial management requirements (the typical three-way match). Because of their integrated nature, ERP systems offer a common database of all expenditures to many users at once allowing a holistic approach to budgeting, accounting, and procurement, and providing for a "single point of truth" (i.e. for data integrity and consistency). However, the challenge of this common database is that the data is stratified from an accounting perspective rather than the commodity or service perspective needed for procurement spend analytics. ERP systems' functionality generally lags behind that of stand-alone eProcurement applications that are developed as "best of breed" and that functionality is often delivered under a software-as-a-service model. The ERP systems are typically challenged to meet the public access and openness required of public procurement.

Functionality common in eProcurement tools that is unlikely to be offered in standard ERP packages includes supplier self-certification, personalized vendor portals, requisitioning, complex catalog hosting and shopping capabilities, electronic bidding (including reverse auctions), team-based bid evaluations, and open/unlimited vendor access to catalogs, accounts, and reports.

Perhaps more important for state procurement and contracting personnel operating in the public sector is the perceived lack of functionality in many ERP systems required for open, transparent, and accessible contracting. Specific features often missing from ERP packages include support for use by local government organizations, unlimited access by the public to reporting, capability to certify suppliers eligible for economic preferences, central portal for publicly advertising solicitations, integration with social media for posting public notices, and support for mobile access to government data.

8 Yick, J. Implementing Vanilla ERP Systems: Factors to Consider in Strategy, Business Alignment, and Customization. (2011) Retrieved from: https://scholarsbank.uoregon.edu/xmlui/bitstream/handle/1794/11401/Yick-2011.pdf?sequence=1

9 Devine, B. The Battle over Funding Procurement Enters the Ring. The Advantages of eProcurement versus Expensive ERP Systems. (2012) Retrieved from: http://govpro.com/resource_center/eProcurement/eProcurement-vs-erp-systems-201210-11/

As a result of these deficiencies, and in order to take advantage of the added capabilities of eProcurement systems, governments appear to be accelerating the adoption of eProcurement solutions.

ERP Integration

There are two deployment models for an eProcurement system - standalone or integrated. After deployment of a standalone eProcurement system, buyers may find that, despite their success in conducting individual transactions, there are significant drawbacks to operating separate from the entity's primary ERP system.

A key disadvantage of a standalone eProcurement system is that it generally only serves the needs of the procurement function and is not used to pay invoices or establish and manage budgets. As a result, detailed data related to purchasing and contracting is maintained in a separate procurement database from the financial expenditure database, and does not get consolidated into a common database with invoice payment and budget data. While the procurement function does have the ability to identify opportunities for consolidated spending and strategic sourcing, enforce purchasing policy to eliminate "rogue" spending, provide accurate management reporting on purchase trends or category spending, and respond to public requests for access to purchasing information, the separate databases impair an organization's ability to do full procure-to-pay and budget analysis, trending or forecasting. Further, the separation of these systems requires adoption of manual processes to enter vendor and order data into the ERP system to process invoices, receipts and payments.

Providers of eProcurement systems have attempted to meet this need by offering receiving and invoicing capabilities in their suites. However, eProcurement offerings may not provide the level of capability offered by traditional ERP applications in the realms of accounts payable, asset accounting, project accounting, general ledger, or banking.

Providers of eProcurement systems have evolved their offerings to overcome the core issues of the standalone model by introducing standard technologies to seamlessly integrate their functionality and processes into the ERP systems. The outcome of this integrated model, when successful, is that such an integration provides for the enhanced functionality of eProcurement and the benefits of a common database of purchasing, payment, and budget data at the same time.

What makes for a successful integration between an eProcurement system and an ERP system will depend on the needs of the organization. However, common objectives of any integration should include the following:

- Be selective about what data will be integrated. Each integration point has a cost to deploy and maintain, and presents an additional point of failure of the system;
- Be clear during design on which system will be the system of record for key data sets such as master vendor files, purchase requisitions and purchase orders, contracts, and payment information;
- Collaborate with accounting, budgeting, treasury, and human resource partners to ensure the integration meets their needs and allows them to have a "single point of truth" when conducting their work;
- Ensure data to be interfaced is "clean" to avoid corrupting the target system;
- Make every effort not to customize or enhance the ERP as these changes typically cost more than in an eProcurement application.

A final point to consider is that ERP vendors are updating their suites to offer their own, branded, eProcurement functionalities. Organizations should evaluate whether the functionality inherent in its existing ERP solution can meet their needs and weigh the loss of some features/ functionality against the costs and impacts of deploying and supporting a separate eProcurement system and the required integration. Organizations should also evaluate the development plans of the ERP system provider to determine whether they have a strategy and are investing to evolve their system to achieve the same best of breed functionality as their eProcurement system competitors.

Return on Investment: What is the Value of an eProcurement System?

Organizations that deploy eProcurement systems can see benefits in many ways, including the reduction of costs for purchased goods, eliminating unnecessary purchases, enhancing supplier participation and performance, streamlining processes, reducing cycle times, increasing staff efficiency, reducing re-work, enhancing accuracy and availability of reporting, increasing public transparency, and reducing environmental impacts. Realization of these benefits depends as much on the processes the organization follows as on the system itself.

Process steps to follow in order to realize the value of

eProcurement systems include:

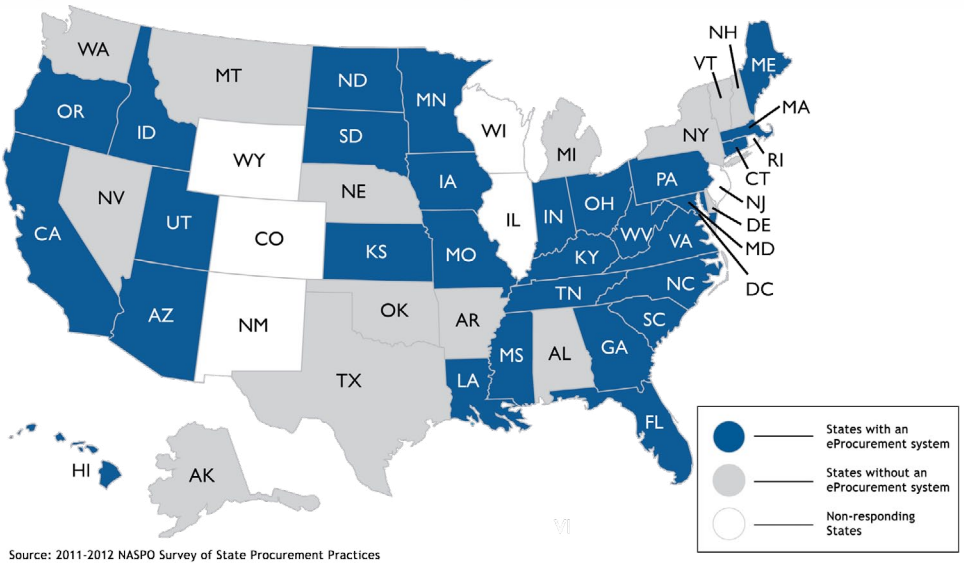
- Spend management: Drive high levels of adoption through policy, training, and outreach. Visibility into an organization's spend enables it to consolidate purchases, eliminate unnecessary spending, and work with suppliers to innovate. Focus on leveraging the metrics readily available in these systems to monitor compliance, monitor usage/participation, evaluate success of procurement practices, assess supplier participation including disadvantaged suppliers analysis, and category spend analysis.
- Enhancing supplier participation and performance: Drive to increase supplier participation through policy, training and outreach. A growing supplier base translates into increased competition, lower prices and ultimately contributes to economic development initiatives. Regularly review supplier performance information to glean opportunities to improve compliance, validate pricing, and improve the ordering and invoicing processes.
- Streamlining processes: Take care not to overuse workflow or business rules, potentially making the electronic process cumbersome and slow. When configured in moderation, customers can gain efficiencies through use of workflow, online bidding and evaluation, and built-in audit and policy compliance features.
- Reduced process costs and impact to the environment: Adopt policies and procedures encouraging use of electronic bidding, evaluation, award, and reporting. An eProcurement system can reduce the use of paper and fossil fuels required to move paper bids between bidders and buyers, therefore having the potential to reduce costs. This can also be a great aid to public procurement officials in ensuring transparency, and reduce costs when responding to requests for public information.

A final source of benefit to be considered is the retirement of existing or legacy systems that the eProcurement system intends to replace. While every situation is different, the licensing model common for most eProcurement systems today is under a software-as-a-service model which can, one time only, make funds available as buyers switch from a model with a single, large payout, in favor of a smaller monthly rental or service fee. Additionally, personnel dedicated to supporting existing systems may be able to be repurposed to mission critical projects as the ongoing support burden for software-as-a-service is typically borne by supplier personnel.

Existing eProcurement solutions in State Central Procurement Offices

Statistics from the 2011-2012 NASPO Survey of State Procurement Practices[10] show that of the 44 responding states, 30 states use an eProcurement system. See Figure below. Of those who use an eProcurement system, seven use a solution that was created internally within that state government.

For a complete list of states and their eProcurement solutions, providers, and year that the solution was acquired, refer to Appendix I.



Source: 2011-2012 NASPO Survey of State Procurement Practices

10 2011-2012 NASPO Survey of State Procurement Practices. (2012) Survey Summary Report available at: http://www.naspo.org/Survey/Documents/Zip/FINAL-SummaryReport2011-12Survey_Updates_1-8-13.pdf

Features and functionality of existing State eProcurement solutions

Results from the NASPO 2011-2012 Survey indicate that the capabilities of states' eProcurement systems vary, with most states having the ability to provide requisitions/purchase orders, solicitation development, receive bids and proposals, and contract award. Of the states using eProcurement systems, all but two of the responding states provide vendor registration and distribute solicitations. Eighteen of the responding states provide evaluation of offers and contract catalogs through their eProcurement systems and 14 provide blanket purchase orders and reverse auctions. In 18 states, the eProcurement system is integrated into the state financial system. Fourteen states' eProcurement systems utilize digital signatures.

Sixteen states' eProcurement solutions allow the user agencies to share documents during solicitation development, and in nine states, user agencies can "pool or aggregate" their bid quantities together through the eProcurement solution. A description of the features and functionality common to most existing state eProcurement solutions are listed in Appendix II.

Funding for State eProcurement Systems

In the face of budget constraints and cuts, the central procurement office has become even more essential to forming state financial strategies. Many central procurement offices have begun experimenting with new forms of revenue-generation in order to sustain staffs and budgets. *NASPO's 2009 white paper Administrative Fees: Creative Funding for Central Procurement in Difficult Economic Times*[11] addressed this issue in depth. More recently, new or renewed strategic sourcing initiatives are underway in several states as another tool in the central procurement offices' arsenal to reduce costs. Often detailed spend data is necessary to achieve optimal strategic sourcing results, creating an even greater need for a central eProcurement system that can capture the detailed spend data necessary to achieve optimal strategic sourcing results. The focus here is to examine how states have been able to fund these eProcurement systems in these difficult times. It is the proverbial "Catch-22", or the "chicken and the egg", whereby spend data is essential to achieve optimal strategic sourcing results yet the cost of an eProcurement system may be prohibitive. How does one get started?

Funding for Existing eProcurement Solutions in State Central Procurement Offices

In this paper, we examine three different approaches to the funding of an eProcurement system for the central procurement office: (1) traditional state appropriated funding (2) the use of transaction and other fees to fund the central procurement office, its eProcurement system, or both, and (3) the use of a public/private partnership (which is further discussed later in this paper). Other funding mechanisms may be available, and the fact that they are not included in this paper should not be interpreted negatively against those mechanisms.

Results from the 2011-2012 NASPO Survey show that for most of the responding state central procurement offices using an eProcurement system, the funding comes from state appropriation, or user/agency fees, or vendor fees. Some states fund their system through a combination

Types of funding for existing state eProcurement systems
Source: 2011-2012 NASPO Survey of State Procurement Practices

State Appropriation	15	AZ,DC,IN,KY,LA,MD,ME,MO,MS,ND,OH,OR,PA,SC,TN
User/agency fee	4	CA,GA,IA,KS
Vendor fee	7	FL,HI,ID,MA,NC,SD,WV
Combination of state appropriation and fees to user agencies	1	MN
General Fund - use of our own staff and MIS staff time	1	CT
Combination of state appropriation and Vendor fee as well	1	MD
Contract rebates	1	UT
Both agency and vendor fee	1	VA

11 Administrative Fees: Creative Funding for Central Procurement in Difficult Economic Times. (2009) National Association of State Procurement Officials. Research Brief

of state appropriation and either vendor fees or fees to user agencies, contract rebates, or both agency and vendor fees. The different types of funding strategies for states' eProcurement systems are shown, by state, in the previous table.

The table above, however, does not tell the whole story. Some of the states that utilize fees today, in order to pay for their ongoing eProcurement system, initially funded the system through a public/private partnership whereby the vendor, at no cost to the state, paid the cost to build and implement the state's eProcurement system. While NASPO does not endorse any single approach to the funding of eProcurement systems, the public/private partnership approach is a creative one that can address the Catch-22 or the chicken and egg dilemma mentioned above. States that initially utilized a public/private partnership include North Carolina and Florida. Virginia also adopted a hybridized form of public/private partnership. These approaches are further discussed later in this paper. There are a number of options to consider and each has pros and cons.

Public/Private Partnership Funding of eProcurement Systems

The public/private partnership approach to funding an eProcurement system is worthy of more discussion. Our intent here is not to discuss public/private partnerships as a general topic but only to discuss them in the specific context of those states that utilized this approach to initially fund their state's eProcurement system. The experiences described here may or may not be reflective of public/private partnerships as a whole.

Some items that are shared in common by the states that developed a public/private partnership to fund their initial eProcurement system include the fact that a private sector company built the eProcurement system at no initial cost to the state. However, each state had statutory authority to impose fees, usually collected as part of the eProcurement system once it was built. Each state conducted a competitive bid because, although there was no initial cost, there would be significant and ongoing downstream reimbursement to the private sector company. Each state found it necessary to later modify or renegotiate contracts based on actual experiences with the public/private partnership contract.

The challenges of the public/private partnership are interesting from the standpoint that the three states examined below experienced similar challenges. It is not clear if these challenges are directly related to the public/private partnership approach or if they were a result of other factors, such as the novelty of the systems themselves developed.

Florida

The State of Florida entered into a contract for the provision of an eProcurement system solution and also included, as part of the scope, the collection of transaction fees. After first satisfying the State Purchasing Legislative Budget Request amount, which funds State Purchasing, the contractor was to be paid from the remaining transaction fees collected. The contract allowed for the State and the contractor to share the revenue above a certain dollar threshold, which was never reached.

The State of Florida has a simple 1% transaction fee that vendors pay on sales to the State. However, Florida's fee structure is unique in two respects. One is that the fee is assessed on all state procurement transactions for commodities and services, not just on contracts issued and administered by the central procurement organization. The other unique aspect of Florida's program is that it allows for many exemptions from the fee. Other states generally have only a few simple exemptions to any fee structure (such as government-to-government purchases or special programs for small or minority businesses).

The public/private partnership contract was successful from the standpoint of the provisioning of the eProcurement system and some revenue generation. However, revenues were below expectations, in part due to the exemptions to the fee described above. After several years, when it was thought that the contractor received back its initial investment, the contract was renegotiated to a fixed price contract.

North Carolina

Like Florida, the State of North Carolina entered into a contract for the provision of an eProcurement system solution that also included, as part of the scope, the collection of transaction fees. This public/private partnership contract was successful from the standpoint of the provisioning of the eProcurement system and revenue generation. North Carolina also faced the dilemma of identifying when the partnership reaches the point at which the contractor recovers its initial investment, at which point transition to a more traditional fee for service contract is appropriate.

North Carolina assesses a transaction fee of 1.75% (applied to goods procurement only) that is used exclusively to fund its eProcurement system. The North Carolina central procurement office is funded from State General Appropriations. Because the transaction fee is used to fund the system only, the fee is only assessed against vendors who receive purchase orders through the eProcurement system itself. Further, fees are assessed only for commodities purchased through

the system; services are exempt. This approach results in lower overall revenue but is a much simpler approach to transaction fee assessment than those of some other states.

Virginia

The Commonwealth of Virginia initially had a contract whereby, in its first five years, there was a fee model that called for the contractor to provide the eProcurement system solution and recover their investment from a portion of the fees charged to vendors. That was determined not to be ideal for the contractor due to fee revenue being less than expected as the system ramped up. Over the next 10 years, Virginia renegotiated its contract and moved to a fixed price contract paying the contractor a set annual sum.

Virginia still collected fees, but also charged both agencies and vendors. Virginia also transitioned from the contractor doing the fee collection to the Commonwealth doing the fee collection. Today, all the fees are collected by Virginia. While the public/private partnership initially built the system, the later model has worked well and been a win-win for the contractor and Virginia. Local government public bodies pay no fees.

The Commonwealth of Virginia eProcurement system operates on a breakeven concept. Vendors and agencies (but not local governments) are assessed transaction fees based on the dollar value of each purchase order for goods and services they receive. The baseline fee is a 1% transaction fee, which is capped at $500 for small businesses and at $1,500 for all other businesses. Currently, to stay at breakeven, the system is operating with temporary reduced fees, and agencies are being assessed a tenth of a percent (0.1) and vendors three-quarters of a percent (0.75) in transaction fees with the aforementioned state caps.

States' Experiences with the Implementation of their eProcurement Systems and Lessons Learned

Arizona

Facing a $1.4 billion budget shortfall, the State of Arizona replaced its multiple procurement systems and old mainframe technology with a "one-stop-shop" eProcurement system, called ProcureAZ. This single, web-based procurement and sourcing portal brought significant cost and manpower efficiencies not only to the state, but to local governments and schools as well. ProcureAZ has yielded a return on investment from two major areas: the administrative fee paid by the vendors and the cost and operational savings realized by the state and state agencies.

How does a state in a budget crisis purchase a new procurement/sourcing system? Arizona devised an "everyone wins" answer to this question by assessing a 1% administrative fee for vendors on purchases made by local government entities. It is important to note that in Arizona, the vendors are not charged the administrative fee when a state agency uses a statewide contract. The administrative fee covered the entire cost for implementing the system within 18 months, and it continues to cover its ongoing usage costs.

The keys to the operational success of the project were the immediate, measurable benefits across key business processes enabled by ProcureAZ. At the beginning of the multi-phased implementation, the ProcureAZ team benchmarked key metrics for key business processes across the state. The metrics captured cycle times, pricing on key contracts, number of transactions, time to deliver reports, etc. The business process metrics were then captured again and have been continually measured since the "go live" of the initial phase. These key performance indicators were part of each and every steering committee report. The following are some of the highlights of the cost and operational benefits of ProcureAZ:

- Reduced Costs – The State saved an average of 26% on contract pricing in a representative sample of new solicitations for various commodities and services:
  - Office supplies – 25.4% lower
  - Janitorial supplies – 24.2% lower
  - Elevator maintenance – 32.5% lower
  - Legal messenger – 20.3% lower
- Reverse Auction Solicitations – Saved an average of 26%
- Increased participation in the State's cooperative purchasing program by 51%
- Reduced cycle time for key processes:
  - Requisition processing – 42.5% less time
  - Purchase order/contract processing – 46% less time
  - Open market, "one-time buy" cycle – 34% less time

In summary, the ProcureAZ project was cash flow positive from the administrative fee alone within 18 months. More impressively, the ProcureAZ project broke even at six months (administrative fee plus the cost and operational

savings realized by the state and state agencies) and has generated almost $250 million in financial benefits to the state in less than four years.

Colorado

Colorado was a key player and one of the four core states that participated in the development of a multi-state cooperative WSCA/NASPO software-as-a-service eProcurement solution. Below are a few lessons learned from Colorado's implementation.

- Secure executive buy-in and formal sponsorship.
- Find Champions and Business stakeholders.
  - Create a solid Governance structure up front.
- Collaborate with all entities.
- Fits in current technology roadmap - IT roadmaps and integration.
  - Pick the right solution. They are similar and yet very different.
- Ensure thoughtful implementation and a thorough understanding of critical path and detail designs.
  - Deploying an eProcurement system has many facets and interfaces with numerous (dozens) systems/interfaces that need to be documented up front. This all take time and huge amounts of resources.
  - Deployment may take more time than anticipated. Plan, plan, and then plan some more!
- Do the implementation in waves and do not buy more functionality than needed up front.
- Hire experts for integration, change management and training.

Michigan

The State of Michigan has recently awarded a contract to implement the BuySpeed eProcurement Solution. The solution will replace several existing legacy systems and has added functionality. The eProcurement project implementation phased schedule includes functionality deployment modules from requisition and approval, through acquisition/sourcing, to receiving, invoicing and payment and vendor management, including interfaces to the financial system, contract management, performance monitoring and reporting. Michigan's eProcurement solution implementation which started in January 2013 has a target go-live end date of March 2015 when the enterprise rollout will be complete to include all remaining agencies and MiDEAL partners.

Michigan's new eProcurement system "is expected to reduce operating costs, diminish "maverick" or off-contract spend and increase transparency in Michigan's state spending"[12].

The implementation of the BuySpeed eProcurement Solution will require organizational change and changes to business processes. To support this change, an Organizational Change Management Plan for the eProcurement System Project was developed, including three parts: Preparing for Change, Managing Change, and Reinforcing Change. The Change Management Team will be focusing on supporting the state in all areas of change management: business process redesign, communication, support, and training. The change management will be ongoing for the duration of the project through the end implementation of all state agencies. Organizational Change Management will be complete for the project once the final "After Change" interviews have been completed and lessons learned have been compiled and archived.

Frequent communication has been identified as a key component to obtain project buy-in and support as well as in alleviating concerns about the change to the eProcurement system. In addition, internal team communication is critical in resolving issues, making informed decisions, setting priorities, and increasing understanding of the solution being developed.
The stakeholders involved for the eProcurement project include:

- External: Vendor personnel
- External: Michigan colleges, universities and K-12 Schools
- External: Local government purchasing organizations
- Internal: State of Michigan (SOM) administrators
- Internal: SOM users (non-administrators)
- Internal: SOM project team members
- Internal: Periscope-Compuware project team members

Additional stakeholders groups have been identified and added to the project team: Project Quality Assurance, Critical Projects Office, and Investment Fund Office. Also recommended was the addition of Chief Financial Officers and Financial Managers User Group monthly meetings as well as a security users group. All stakeholders are included in the monthly communications and web updates according to the communication plan.

12 Periscope Wins Michigan eProcurement Contract. Periscope Holdings, Inc. Press Release. Retrieved from: http://news.periscopeholdings.com/tag/purchasing/

Nevada

Over the last decade a number of state procurement agencies have either implemented or are in negotiations to transition to a software-as-a-service (SaaS) eProcurement solution. Nevada participated along with Colorado, Oregon, and Washington, in the market research and development of a cooperative Western State's Contracting Alliance (WSCA) RFP solicitation for eProcurement Services and Solutions that was released in October 2010. Nevada was a key player on the sourcing team for this solution. After an extensive evaluation, vendor presentation, and clarification process of proposing vendor, in June 2011, an award was made and contract signed for this eProcurement solution.

In August, 2012, the State of Nevada prepared a business case[13] for an eProcurement solution, to address the current need for change in its Department of Administration, Purchasing Division. The Purchasing Division is responsible for a wide variety of statewide procurement, from paper to boats to firearms to office equipment. Every year, the division oversees $505 million in purchases ($9.2 million in P-Card expenses) from over 4,000 vendors. The existing process relies on many manual steps, does not capture significant data, and does not allow the state to consolidate buying power. Moreover, spent outside established contracts with preferred vendors is not captured.

Three alternatives were investigated as part of Nevada's business case analysis, including maintaining the status quo, maintaining current functionality with commercially off the shelf software (COTS), and implementing a full procure-to-pay SaaS solution. It was concluded that the first two alternatives were not acceptable long term. While COTS may accommodate some of the desired features, such as posting solicitations, receiving notification of opportunities to bid, running queries for information on contracts and registered vendors, and generating reports, some issues and limited functionality of the current solution practices will remain. Also, COTS will limit the cost savings and leverage of the WSCA partnership that Nevada has established over the past several years. It was noted in the analysis that the most significant risk associated with COTS is tied directly to the choice of solution, the vendor selected, and the speed in which conversion to the new technology will occur. Selecting the SaaS alternative seems to be the best alternative in terms of correcting the problems of the current system and leveraging the WSCA partnership and SaaS solution provider to procure and implement a full procure-to-pay eProcurement solution with additional functionality. Some of the benefits are highlighted below:

- The system will allow suppliers to create catalogs that will enable government agencies to compare prices and shop for goods and services on-line and make purchases electronically.
- Spend will be captured by the Nevada Purchasing Division from the system rather than from the self-reported sales from suppliers.
- Better analysis of data to determine spending patterns across the Nevada Purchasing Division user community.
- Visibility into state spending that can then be used to develop an enterprise sourcing strategy to fully leverage the state's buying power.
- Metrics for measuring supplier performance can be created and published in an expanded system to track Key Performance Indicators.
- As a web-based solution, there is no hardware or software to purchase or maintain; just implementation costs and a yearly subscription fee.
- Minimal Web browser and O/S requirements. The vendor is responsible for all software and hardware support, maintenance, and upgrades.

Efficiencies and benefits of the proposed eProcurement solution include contract compliance, strategic sourcing, process savings, and PCard savings. Business processes will likely be streamlined and there will be a change management component, and staff and vendors will need to be trained (online) on the new system. Data is owned by the state and, given system failure or contract termination, shall be returned to the state in appropriate form for use in a follow-on system. Data security will be managed by the vendor and the service level agreement (SLA) will determine penalties associated with a data breach or data corruption. The functional activities of performing purchasing for the State of Nevada will be fundamentally unchanged.

Calculations included in the Nevada business case are shown below. All savings are calculated conservatively with the assumption that Nevada will never get to 100% of spending being channeled through the solution. Estimated time for the eProcurement solution deployment is February 2014 – April 2014.

- **Estimated Ongoing Annual Support:** $827,904.
- **Total Estimated Implementation Cost:** $743,289
- **Total Estimated First Year Cost** of $1,571,193, including implementation plus first-year annual subscription fee
- **Five Year Total Cost of Ownership:** $4,882,809

13 State of Nevada e-Procurement Solution Business Case. Department of Administration. Technology Investment Request for FY14-15

- **Five Year Returned Value:** $67.7 Million
- **Five Year Gain on Investment:** $62.82 Million
- **% Return on Investment:** 1,387% (just under 14 X return on investment)
- **Estimated Years to Payback (implementation costs only):** .93 years (11.2 months)

At present, Nevada is in the process of investigating the actual and verifiable hard-dollar savings, so that budgets can be adjusted to reflect those savings, or at a minimum, confirm that the state's eProcurement acquisition is revenue neutral. Nevada is also working with their state controller to determine the right course of action for integrating their eProcurement solution with their ERP (and the possible hurdles involved with replacing their ERP in the future).

North Carolina

The North Carolina Procurement Transformation Project was the result of an Office of State Budget and Management (OSBM) review of North Carolina's procurement practices. This review coincided with the signing of Executive Order No. 4, NC Open Book. The 2009 review found the state's procurement practices to be highly complex while lacking centralized information management, defined performance goals, and compliance and training resources. The findings within the OSBM's study precipitated a three-pronged transformation initiative that aimed to "create a customer-focused enterprise to achieve increased procurement effectiveness, efficiency, and compliance resulting in significant financial benefit for taxpayers by reducing the costs of acquiring goods and services." The initiative is currently underway with an anticipated two to three year timeframe for complete implementation.

The project focuses on four functional work streams within procurement: organization, strategy and governance, strategic sourcing, and technology. Within this latter work stream, a recommendation was accepted to upgrade the state's system in order to serve as North Carolina's core eProcurement system for the state. The upgrade to the eProcurement system is expected to achieve best value, delivery excellence, operational efficiency, and workforce excellence, among other benefits. Other project facets that are expected to help reach these goals include the implementation of an improved system of spend reporting, the expansion of e-Sourcing and bidding capabilities to reduce evaluation times and bid entry, and the integration of the eProcurement system with the state's human resources system to align with personnel interfaces and security policies.

Another major component of the initiative involves the improvement of the "punch-out" catalog. Started in 2011, the objectives of this project include the improvement of catalog content, the refining of the processes used to create new catalogs, and the establishment of a continuous program improvement plan.

Virginia

Like many governments, the ability of the Commonwealth of Virginia to efficiently purchase goods and services was hampered by a decentralized procurement model. Before the Commonwealth built and deployed their eProcurement system, eVA, selling to and buying on behalf of government was a laborious task.

If a supplier wanted to sell office supplies to the Commonwealth and market its goods to possible buyers, the supplier had to find the purchasing offices of each agency, institution and local government entities. Suppliers had to travel in person to these offices to register and find what business opportunities were available or they could participate in a $75 annual subscription to a solicitation publication that only advertised business opportunities valued at over $30,000.

When a supplier received a purchase order, the format and information always varied among purchasing offices, so it was easy to make mistakes in determining what an agency was ordering. There were frequent returns and corrections on orders. Because the whole process was conducted on paper, the supplier couldn't automate its supply chain for delivery. The manual process took time and required constant communication between the supplier and buyer. This created delays for agencies to receive the supplies they needed and for the supplier to receive payment.

If a buyer in a state agency was trying to purchase supplies for their unit, then the buyer had the same experience from the other side. The buyer had access to a limited list of potential suppliers for competition on their solicitations and when placing orders faced a multitude of price lists, returns for errors in product or pricing and time-consuming paper-based processes. The buyer also had no means to communicate with buyers in other agencies who might be purchasing the same goods or services so they often had to pay more per unit because purchases were uncombined and the state was not leveraging its bulk buying power.

Overall, buying patterns were characterized by a lack of knowledge of the items available on contract and in catalogs, on determining the best supplier available, and on best practices by other agencies resulting in a better price.

This made doing business with the state dependent on personal relationships between suppliers and buyers. Suppliers sold only to offices they knew, slowing the growth of their businesses. Small businesses had limited access to the market if they didn't have the resources to build personal relationships with the myriad of buyers throughout the state. Each purchasing office operated as its own business including the satellite offices of a single agency, resulting in a greater reduction in buying power to be leveraged. These inefficiencies and missed opportunities embedded in this way of doing business increased the cost to the Commonwealth and ultimately the taxpayer. A new way of doing business through a single electronic procurement system for the state was envisioned.

Virginia's Solution: Statewide Electronic Procurement

The eVA system is an end to end, government-to-business network streamlining the Commonwealth's purchasing processes creating a virtual enterprise-wide procurement system. It provides electronic purchasing through a web site for all Commonwealth of Virginia agencies, local governments, and institutions of higher education. It funnels this purchasing through a single electronic portal capable of managing the unique needs of a diverse group of state and local agencies and suppliers. eVA does this by automating workflow; utilizing common auditable business rules that apply to all users, while supporting unique rules for each buying organization; providing data capture and aggregation for procurement information and activity; and securing the transmission of transactions and data.

eVA has made doing business with the Commonwealth easier because there is one standard way to access business with the Commonwealth. This system establishes a central clearinghouse of information for both supplier and buyer. Suppliers can expect one electronic standard, regardless of the multiple back-end systems agencies use. Suppliers no longer have the frustration and additional cost of connecting their order management systems and business processes to government in multiple ways in order to sell goods and services to the Commonwealth.

eVA also provides suppliers with a self-service tool to register across multiple government agencies. Suppliers can enter their own demographic information and confirm the accuracy of the information prior to entry, increasing the quality of the supplier data. Through supplier self-service, agencies avoid the time and resources needed to manage these processes.

eVA uses technology tools to share information with suppliers regarding contract opportunities, historical contract and bidding information, and government news and information. Suppliers avoid the expense of paper catalogs by placing electronic catalogs in a virtual marketplace accessible by any authorized public sector shopper. Shoppers connect to eVA through a web browser—accessing and searching on-line supplier catalogs and placing electronic orders for goods and services directly from their desktops.

If a solicitation is required, the documents are created through predefined libraries of information and published to the Web. Recipient supplier lists are also created electronically, so that as solicitations are published to the Web, registered suppliers are automatically sent e-mail notifications of and hyper-links to the impending opportunity. Procurement documents can be distributed electronically.

Registered suppliers can Web search, view, and electronically bid on solicitations. eVA also offers reverse auctions—suppliers can anonymously post bids to an open forum, where they can compare their bid to the lowest one submitted. Suppliers can re-submit their response at a lower bid, providing real-time competition for the buyer.

The entire bid evaluation process can now be done electronically, from posting submitted bids on the Web to submitting, capturing, tabulating and compiling team evaluations. eVA provides the buyer with a summary of the team's evaluation, an assessment of the supplier's responses to evaluation criteria, and an electronic bid evaluation of prices by item and by supplier. When the buyer is ready to issue an award, document delivery and publishing requirements are selected, and award results are posted to the Web for public review.

eVA supports the creation, modification, and distribution of contracts, master agreements, and purchase orders to suppliers. eVA also provides electronic invoicing capabilities for suppliers to facilitate faster payment processing.

eVA provides tracking and reporting capabilities so users can track and audit procurement progress, activities and history. Effectively, eVA provides the ability to manage the complete procurement life cycle to state agencies, institutions of higher education, and local governments utilizing the system.

Overall, eVA has transformed the business of purchasing for the Commonwealth. It reduces paperwork and creates a virtual enterprise community of online purchasers and suppliers who benefit from transacting electronically. At the same time, state agencies, institutions of higher education and local governments retain their unique business rules, while benefiting from economies of scale and information from an enterprise-wide solution.

eVA Functionality: Addressing the full Procure-to-Pay process

- Requisitioning, Approvals, Orders & Electronic Order Delivery
- eSourcing & Reverse Auctions
- Public Posting & eMail/eFax Supplier Notifications
- Supplier Enablement: registration, personalized portal, catalogs/punch-outs
- Buyer Enablement: organization/user setup, PCards, data maintenance
- Reporting, Spend Analytics & Spend Management
- eInvoicing
- Integration-Interface with 69 ERPs: Peoplesoft, Oracle, Banner, Munis, etc.
- Mobile Apps for Approvers & Suppliers
- Supplier Master Data distribution
- Transparency Reporting
- Data Retention

eVA Metrics

A. Participation
   - 220+ State Agencies/Colleges/Universities
   - 595 Local Government organizations (including 135 Public Schools)
   - 26,700+ state and local government users
   - 57,800+ Suppliers registered
   - 983 Catalogs, 120 punch-outs, 5.1 million items

B. Transactions
   - 450,000+ orders per year
   - $4-5 Billion spend per year
   - 15-20,000 on-line solicitations per year
   - 49+ Million Supplier bid eMail/eFax notices per year

C. Savings
   - Price ($368 million since CY2000 from reduced prices of goods and services)
   - Efficiency ($105 million since CY2000 from more efficient administrative processing of purchase orders)

D. Competition
   - 30-fold increase in average number of suppliers invited to bid
   - 100% increase in bids submitted on less than $50K procurements

Conclusions

A number of states are now considering (or will be faced with soon) a decision of whether to transform their procurement systems, retire their legacy systems, integrate eProcurement functionalities into their state's ERP systems, or deploy a separate eProcurement system.

As noted above, every state's situation is different and there are benefits and limits to functionality for each solution; however, the success of one implementation over another will depend on whether the solution chosen is the best match for the needs of the organization.

NASPO hopes this paper may assist procurement officials in their efforts to choose the best solution that effectively addresses their jurisdiction's needs. The paper has examined the different roles of ERP and eProcurement systems, how they support common principles of public procurement, pros and cons of each alternative, and benefits and examples of implementations from a handful of states that were able to contribute to this paper. We highlighted lessons learned, practices regarding ERP integration, and functionalities of existing eProcurement systems among the states, in order to guide this decision-making process.

Acknowledgements

This NASPO paper was produced by the Emerging Issues Committee's ERP/eProcurement Work Group, who provided important feedback and guidance throughout the process.

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The principal authors were NASPO Senior Policy Analysts Elena Moreland and Chris Record, who contributed their research and analysis skills to the paper, and editor was Chris Heiss, Graphic Designer at AMR Management Services.

Thank you for everyone's work and significant feedback to the paper.

Appendices

Appendix I Existing eProcurement Solutions by State
Source: 2011-2012 NASPO Survey of State Procurement Practices

Responding State	eProcurement Solution/Provider and State Comments	Acquisition Year
Arizona	Periscope Holdings, Inc.	2008
California	BidSync (interim solution until Fiscal can be implemented)	2009
Connecticut	Oracle PeopleSoft ERP (in-house solution)	1998
District of Columbia	Ariba	2004
Florida	MyFloridaMarketPlace (Ariba)	2003
Georgia	PeopleSoft with SciQuest catalogs	2006
Hawaii	SicommNet, Inc.	2005
Idaho	SicommNet, Inc.	2002
Indiana	PeopleSoft	1999
Iowa	CGI and SciQuest	2001 and 2010
Kansas	PeopleSoft	2009
Kentucky	CGI/AMS	1999
Louisiana	ISIS AGPS and SAP ERP. New SAP ERP system with pilot agency Nov. 2011	1995 and 2011
Maine	CGI/AMS	2007
Maryland	Periscope Holdings, Inc.	2000
Massachusetts	Comm-PASS (Massachusetts is in the process of replacing its in-house solution with an eProcurement Solution)	1997
Minnesota	Oracle PeopleSoft	Implementation in process 2011-2013
Missouri	CGI/AMS	1998
New York	NYS is in the process of implementing a statewide financial management system (SFS). SFS is Oracle PeopleSoft	N/A
North Carolina	Ariba	2001
North Dakota	PeopleSoft Oracle ERP	2006
Ohio	PeopleSoft Strategic Sourcing Module	2011
Oregon	SciQuest solution (Oregon is in the process of implementing ORPIN 2.0 through WSCA SaaS eProcurement)	ORPIN 1 procured in 2004
Pennsylvania	SAP	2007
South Carolina	SAP	No response
South Dakota	ESM Solutions	2002
Tennessee	Oracle PeopleSoft	Went live 2009
Utah	BidSync	2007
Virginia	CGI/AMS, Inc. w/Ariba	2000
West Virginia	In-house solution	1991

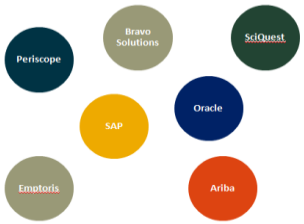
Appendix II Functionality and Capabilities of Existing State eProcurement Systems *Source: 2011-2012 NASPO Survey of State Procurement Practices*		
Requisitions/purchase orders	24	AZ,CA,DC,FL,GA,IA,ID,IN,KS,KY,LA,ME,MN,MO,MS,NC NY,OR,PA,SC,SD,TN,VA,WV
Solicitation development	22	AZ,CA,DC,FL,GA,IA,ID,IN,KS,KY,LA,MA,MN,MO,MS, OR,PA,SC,SD, TN,UT,VA
Distribution of solicitations	28	AZ,CA,CT,DC,FL,GA,HI,IA,ID,IN,KS,KY,LA,MA,MD,ME, MN,MO,MS,NC,ND,OR,PA,SC,SD,TN,UT,VA
Vendor registration	28	AZ,CA,CT,DC,FL,GA,HI,IA,ID,IN,KY,LA,MA,MD,ME,MN MO,MS,NC,NY,OR,PA,SC,SD,TN,UT,VA,WV
Receiving bids and proposals	24	AZ,CT,DC,FL,GA,HI,IA,ID,IN,KY,MA,MD,ME,MN,MO, MS,OH,OR,PA,SC,SD,TN,UT,VA
Evaluation of offers	18	AZ,DC,FL,IA,IN,KS,KY,MA,MD,ME,MN,MS,OR,SC, SD,TN,UT,VA
Contract award	25	AZ,CT,DC,FL,HI,IA,ID,IN,KS,KY,LA,MA,MD,ME,MN,MO ,MS,OH,OR,PA,SC,SD,TN,UT,VA
Contract administration	18	AZ,CT,DC,GA,IA,ID,IN,KS,KY,MA,ME,MN,MO,MS, OR,SC,TN,VA
Contract catalogs	18	AZ,DC,FL,GA,IA,IN,KY,LA,ME,MN,MS,NC,OR,PA, SC,SD,TN,VA
Blanket purchase orders	14	AZ,DC,FL,GA,IA,ID,IN,KY,LA,MN,OR,SC,TN,VA
Reverse Auction	14	AZ,DC,FL,IA,IN,KY,MN,OH,OR,PA,SC,TN,UT,VA
Utilizes digital signatures	14	AZ,CT,GA,IA,KS,KY,MA,MN,OH,OR,PA,SC,UT,VA
Integrated into the state financial system	18	AZ,DC,FL,GA,IN,KS,KY,LA,ME,MN,MO,MS,NC,OH,PA, SC,TN,VA
Does not maintain a record of contractor performance	13	AZ,CA,FL,GA,HI,ID,LA,MA,MD,MN,OR,PA,SC
Contractor performance Reporting by client agencies	8	DC,FL,IA,KS,KY,NC,VA,WV
Performance reports publicly available (i.e., available to persons other than internal system users)	3	CT,FL,VA
Provides for using agencies to share documents during solicitation development	16	CA,CT,DC,FL,HI,ID,KS,LA,MD,MN,NC,OH,OR,SC, TN,VA
Provides for using agencies to "pool or aggregate" their bid quantities together	9	AZ,DC,FL,KY,LA,MN,SD,TN,VA

Solution Evaluation Methodology

APPENDIX 7

Initial Vendor Identification

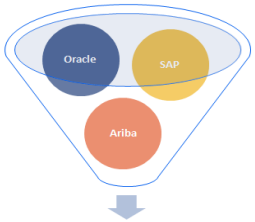
Stage 1



Potential vendors were selected from the tier 1 providers and niche public sector vendors

Proven Solution

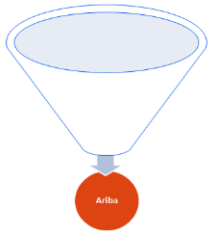
Stage 2



The initial list of vendors was filtered down. Vendors with solutions proven at scale and had end to end solution offerings were kept for consideration

Key Criteria

Stage 3



The remaining vendors were rated against the State's 10 key criteria

High Level Requirements

Stage 4

The vendor recommended was then evaluated against the High-Level functional and technical requirements that were capture during the Technology Assessment

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Evaluation Summary

Ariba was recommended because they ranked high against the key criteria an offered the lowest Total Cost of Ownership proposition for the State:

- The current solution meets the State's core needs
- The upgrade will leverage the State's existing investment including enhancements and interface points
- The Ariba 9r1 upgrade will provide additional functionality to help the State utilize the tool more effectively (i.e. Catalog searching, Catalog management)
- Selecting Ariba reduces the change management effort and duration, allowing the user base to grow onto their existing knowledge of the system and functionality
- The upgrade provides an opportunity to investigate and potentially reduce key challenges (i.e. Catalog Search, Performance, and Workflow processing)
- An Ariba 9r1 upgrade allows the State to focus critical resources on key areas of improvement such as Sourcing, Spend Analytics, Catalog Management, Master Data Management, and Supplier Management

SAP and Oracle were not recommended at this time because:

- Requires the State to focus critical resources on installing the new system with functionality that matches the existing system
- To get the same level of functionality, multiple modules must be installed
  - SAP Supplier Relationship Management (SRM) needs Master Data Management (MDM) to mange internally loaded catalogs
  - SAP Business Intelligence (BI) is needed to provide base reporting capabilities
  - SAP Portal must be installed to provide the web based interface
  - 3rd Party Add-On required for searching across punch-out catalogs
  - Oracle iProcurement requires Oracle Purchasing or Oracle Application Reporting (OAR) for minimal reporting capabilities
- Increases the State's change management effort
- Pulls critical State resources away from high value strategic efforts such as Sourcing and Contract Management
- Accenture has not seen a situation where SAP SRM was installed without SAP ERP system as the primary financial transaction system, as a result of the challenge that SAP has with interfaces to non-SAP financial systems

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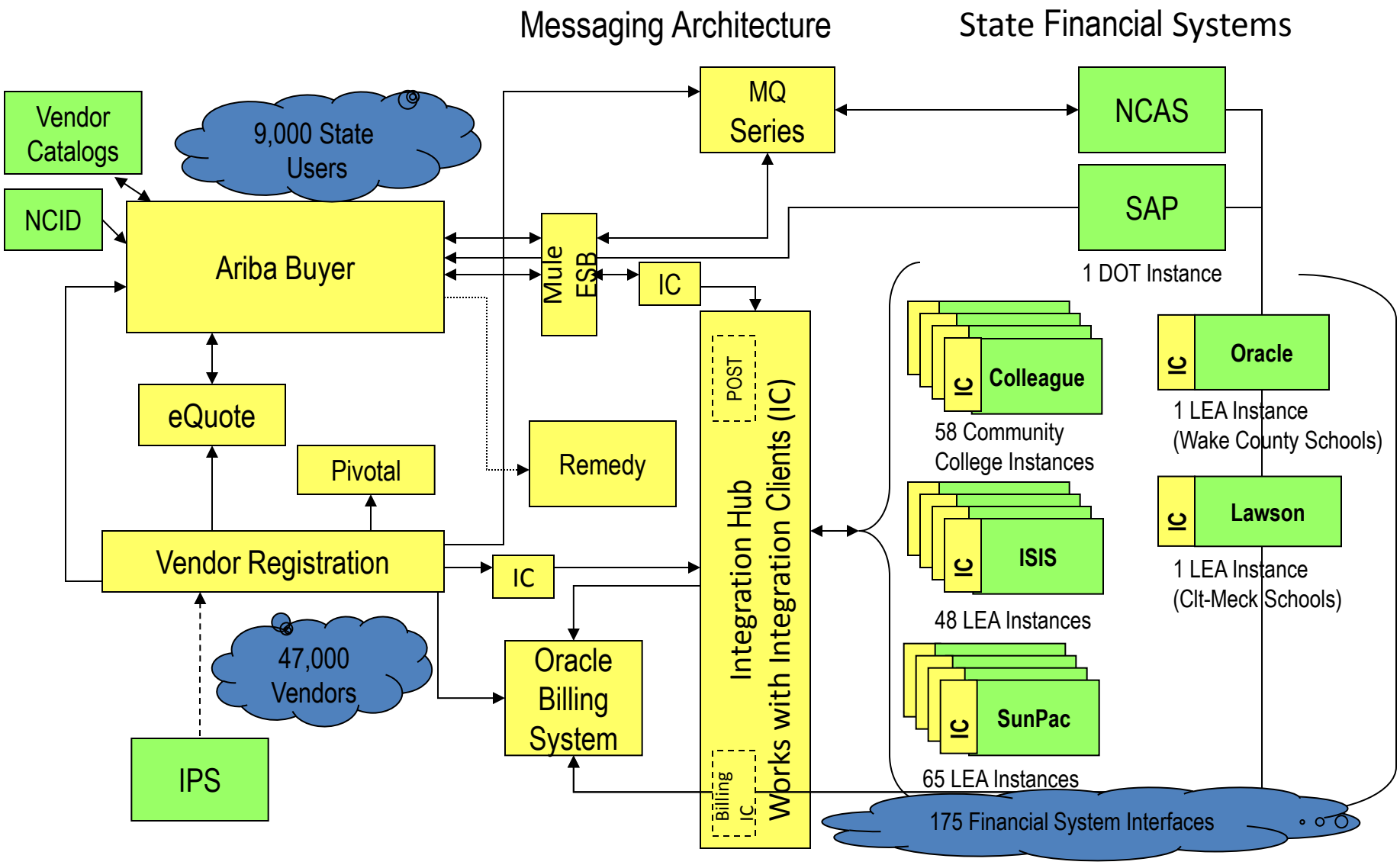
APPENDIX 9

North Carolina E-Procurement System

Component Overview



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University of North Carolina
SciQuest E-Procurement Presentation

House Select Committee on E-Procurement

February 15, 2012

Presenters
Ken Craig, UNCGA
Randy Duncan, UNCC
Scott Brechtel, UNCC
Martha Pendergrass, UNCCH

UNC SciQuest E-Procurement Session Outline

- UNC SciQuest strategic alignment
- System operating costs
- SciQuest purchase to payment system overview
- SciQuest to Banner system integration
- UNC-Charlotte system demonstration
- Spend analysis demonstration

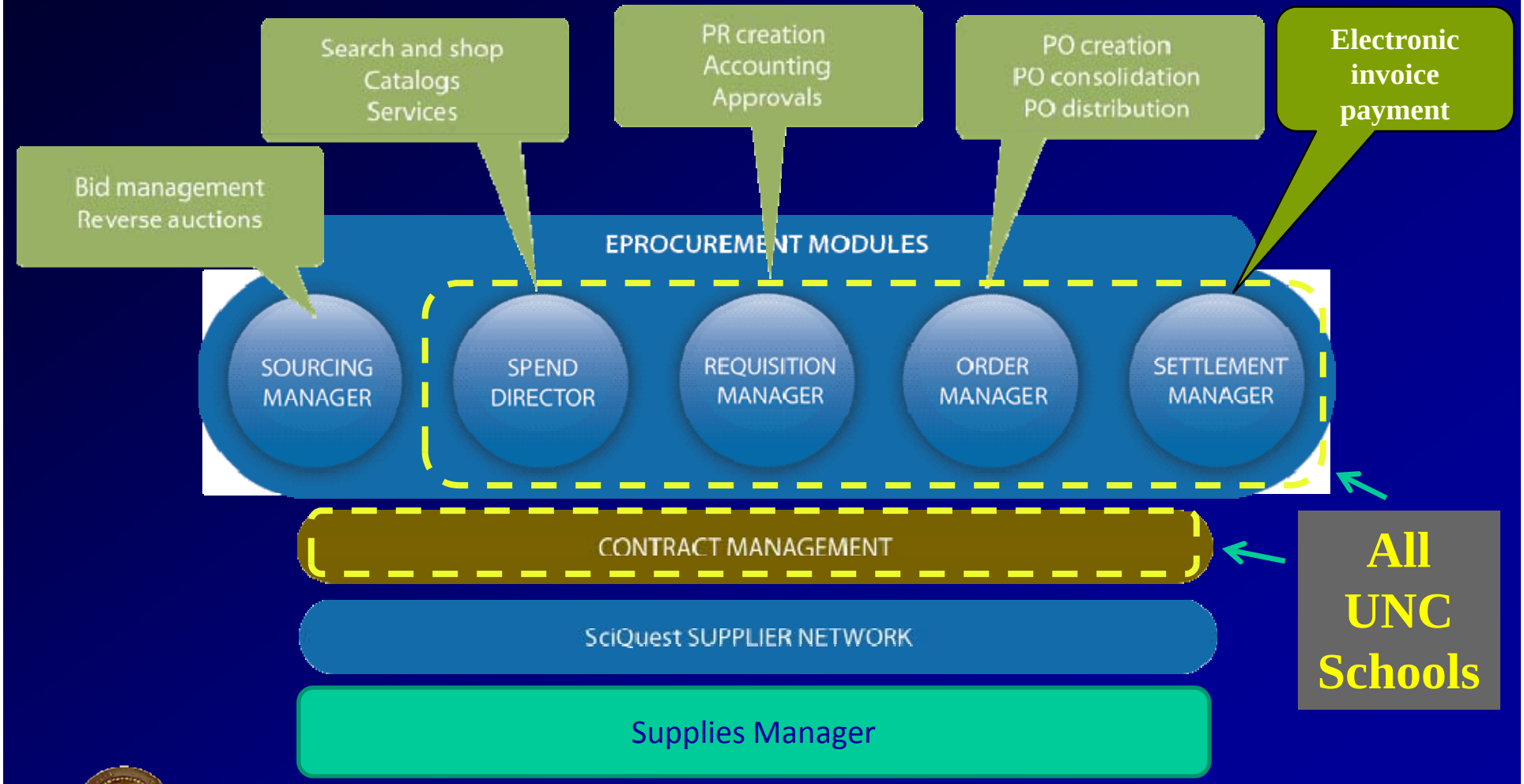
UNC SciQuest Strategic Alignment

- **Sole E-Procurement strategic partner with real-time interface with Banner**
- **Lowest E-Procurement total costs of ownership**
- **Provides an electronic purchase to payment solution**
- **No duplicated IT support required**
- **Fourteen UNC (Banner) campuses use SciQuest's E-Procurement system**
- **Solution endorsed by DOA and State ITS in 2008**

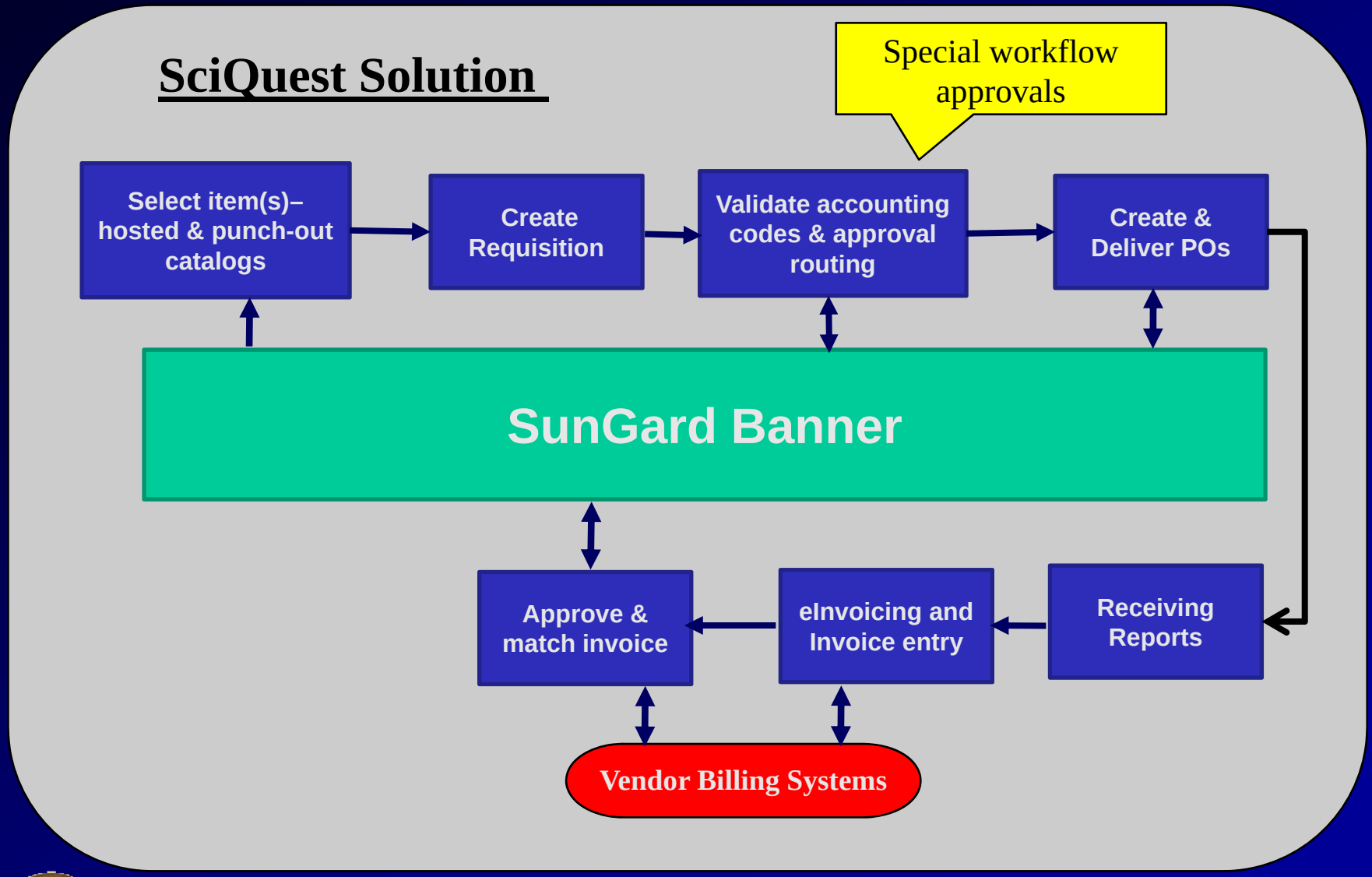
UNC SciQuest Operating Costs

Cost Description	List Price	UNC Price	Discount
One Time Implementation Costs	$3.6M	$2.5M	31%
Annual License Fee	$3.3M	$1.3M	61%

SciQuest Purchase to Payment System Overview



SciQuest / Banner System Integration



UNC Charlotte System Demonstration

- Requisitioning
- Purchase order processing
- Receiving
- Invoicing
- Transaction status
- Data analysis

Spend Analysis

- Spend Compass tool used for spend analysis
  - Affiliated with Education Advisory Board
- Benchmarking data warehouse with hospitals and higher education institutions
  - 60 universities
  - Over 200 hospitals
- Demonstration
  - Contract enablement (UNCC)
  - Contract compliance monitoring (UNCCH)

University of North Carolina
SciQuest E-Procurement

Questions and comments

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APPENDIX 11

NC E-Procurement your service
www.ncgov.com

NC E-Procurement @ Your Service

An E-Procurement Overview

Department of Administration

Division of Purchase and Contract

Presented to

House Select Committee on E-Procurement

February 15, 2012

Sam Byassee
State Purchasing Officer
Direct line: 807-4533
sam.byassee@doa.nc.gov

E-Procurement Statutory Authority

§ 143-48.3. Electronic procurement.

- Electronic procurement system mandate
- Co-operation of ITS
- University and Community College opt-out until May 2003

§ 66-58.12. Agencies may provide access to services through electronic and digital transactions; fees authorized.

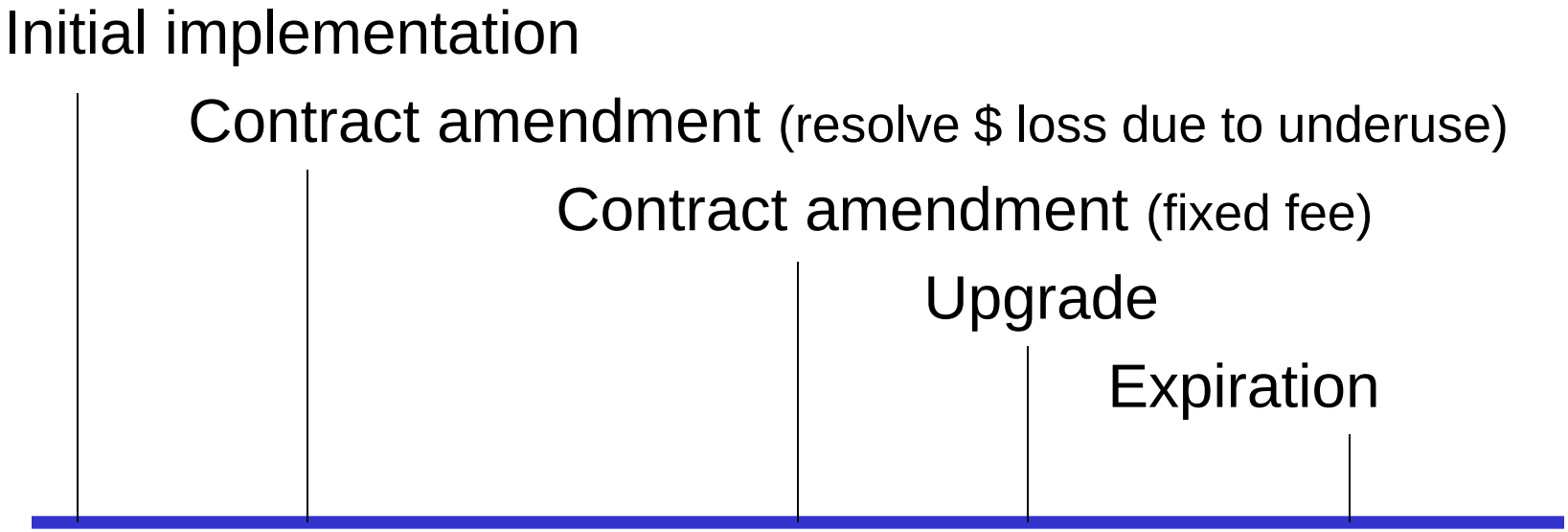
- Fees approved by OSBM
- Revenue into agency reserve account
- Use only for e-commerce initiatives and projects, with approval of State CIO and consult. With Joint IT Oversight

Electronic Procurement System:

The technology that supports the services

- **Ariba Buyer (electronic purchase orders)**
- **e-Quote marketplace**
- **Vendor Registration**
- **IPS (Interactive Purchasing System) – RFP/IFB posting**

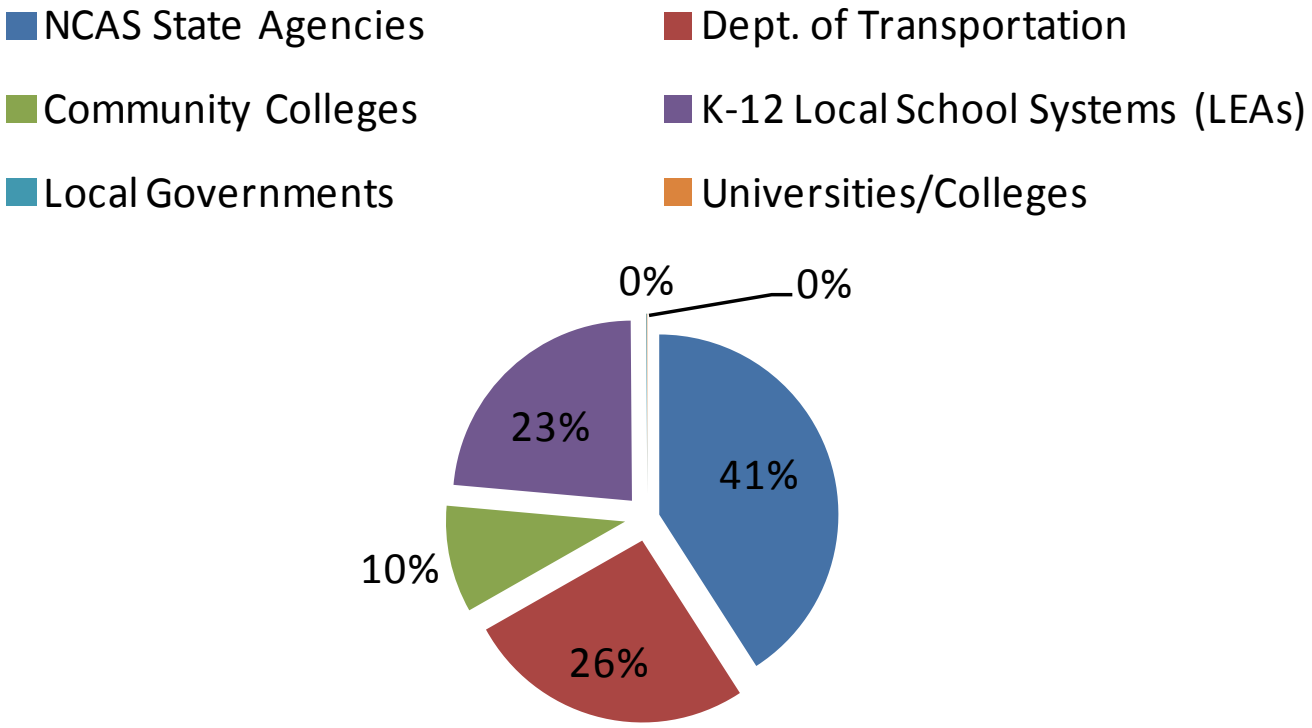
e-Procurement Operation Timeline



System Usage

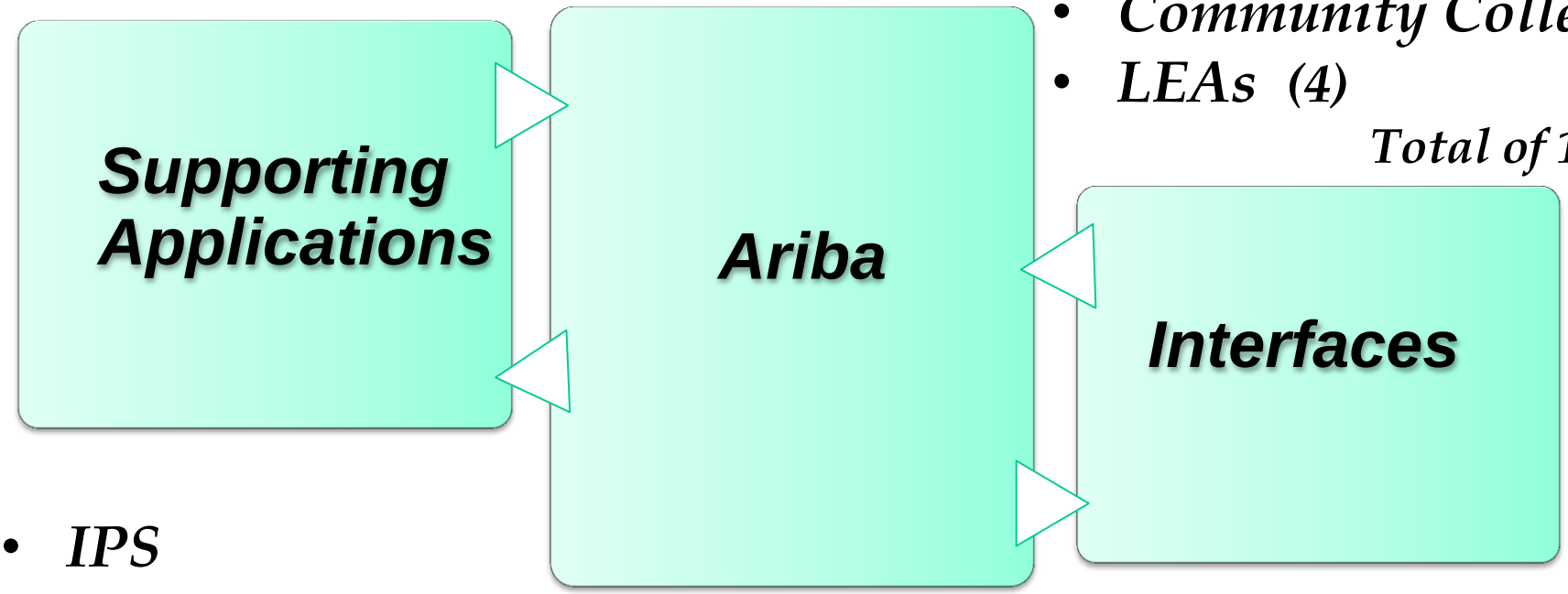
- **234** different NC entities now use E-Procurement
  - **30** state agencies
  - **16** institutions and hospitals
  - **58** community colleges
  - **115** K-12 local school systems (LEAs)
  - **15** local governments
- More than **14,000** total users
- More than **45,000** registered vendors

NC E-Procurement Spend FY08-FY11



- *NCAS*
- *SAP*
- *Community Colleges*
- *LEAs (4)*

Total of 178



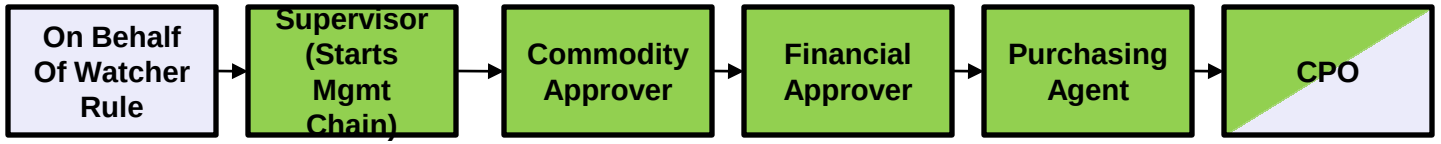
- *IPS*
- *eQuote*
- *Vendor Registration*
- *Reporting*

Procurement Functions

- Vendor search
- eRequisitions
- Catalog search
- Approval flow
- eQuote

Management Functions

- Vendor registration
- Workflow management
- Compliance and accountability
- Data aggregation and reporting



Electronic approval flow facilitates an effective procurement approval process for the State. It allows procurement professionals to focus on more critical strategic initiatives, while it facilitates the proper authorizations before goods and/or services are purchased.

Compliance and Accountability

- procurement method field requires justification at the line item level of basis for purchase (from designated vendor at designated price) e.g., State Term Contract, agency bid, eQuote, sole source, etc…
- Approval process automatically generated from Agency rules (based on dollar thresholds, agency management structure, commodities, and State oversight rules)
- audit trail (what is changed about any requisition by whom and at what time

APPENDIX 11

High Level Purchasing Flow

E-Procurement your service
www.ncgov.com

Create Requisition

- Shop State Term Contract catalogs
- Conduct on-line quotes
- Record formal solicitation results

Approve Requisition

- *Rules based on:*
- $$ amount
- Type of purchase
- Contract source
- Source of payment
- Agency purchasing oversight
- Statewide purchasing oversight

Confirm Fund Availability

- Check for fund availability against designated accounting code

Issue Purchase Order

- Purchase order issued electronically
- All details of steps from requisition to purchase order retained

Receive Items/ Services

- Receipts compared against purchase order before payment

Consolidate & Report

- All data consolidated for effective analysis of purchasing patterns

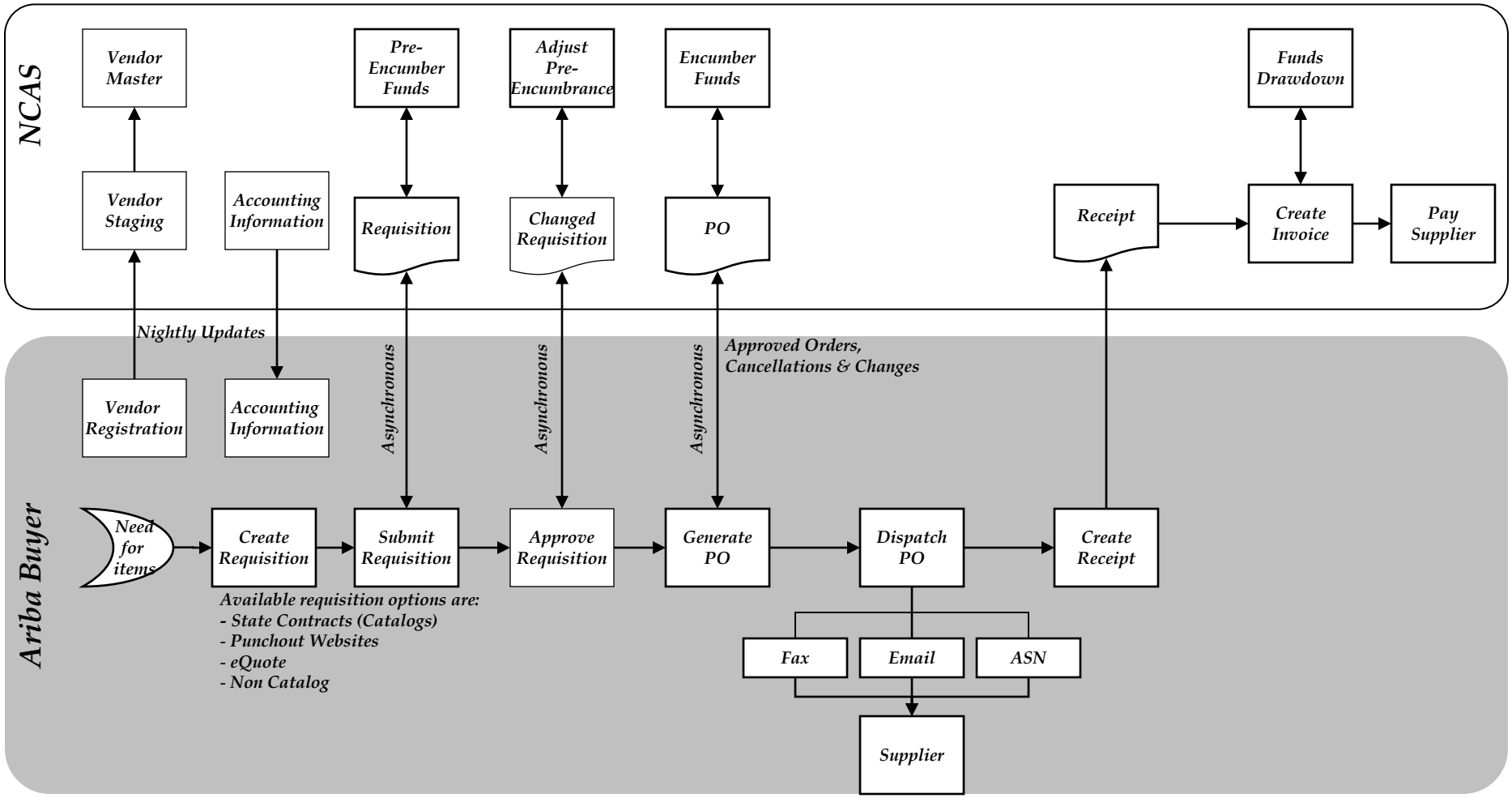
Compliance and Accountability Through Process Control

Data Aggregation and Analysis

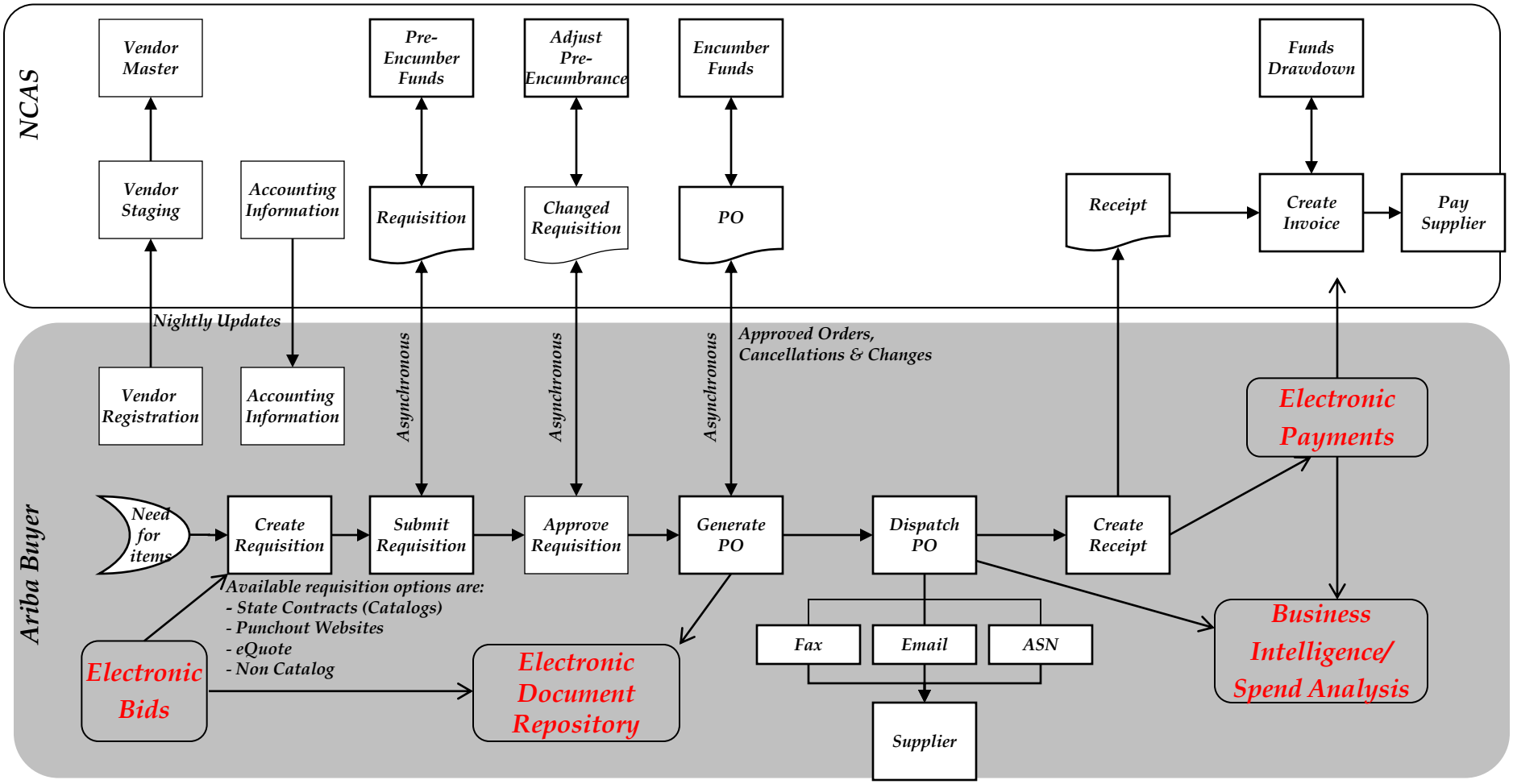
House Select Committee on e-Procurement
February15, 2012

E-Procurement your service
www.ncgov.com

Ariba Buyer / NCAS Data Transfer



Ariba Buyer / NCAS Data Transfer



System Demo