Ysleta Independent School District

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El Paso, Texas 79925-7225
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Michael Deusinger
SLD
80 S. Jefferson Road
Whippany, NJ 07981

June 21, 2002

Dear Mr. Deusinger,

This is in response to your "Bids and vendor selection" question of lune 14.

- How was IBM, which is a vendor of your current 471 application selected to be on that 471?

  IBM was selected through a competitive process, including posting of the FCC Form 470, typically requisite of any E-Rate competitive solicitation issued by the Ysleta Independent School District. IBM and other vendors responded to the FCC Form 470 or RFP. After reviewing all RFP/470 responses, IBM was selected.

- How were the individual IBM FRNs on the 471 application developed?

  Prior to the issuance of the RFP, the District's technical information system staff developed a list of possible projects (FRNs). After IBM's response to the RFP/FCC Form 470 posting was determined to be the most responsive, and recommended for contract award, the tentative projects list was shared with IBM; it was then asked to assist in the definition of each item's (each IBM FRN) scope of work. This activity resulted in a shortened list comprised of individual FRNs, ultimately submitted for possible funding. Prior to the submittal of the 471 application, the District ensured that all project items addressed an identified need and were within the institution's ability to support any resultant financial commitment.

- Please explain the process which was used in the development of the Request for Proposal for a "Technology Implementation and Systems Integration Partner," including answering who specifically wrote the RFP and who had input in its development and to what extent.

  The District wrote the FRP. Through its professional affiliations and by contacting other school districts, the District's technical information system staff initially entertained the use of an integration partner. Although in previous e-rate application submittals the District had, utilized only in-house resources, the use of

one partner presented several attractive qualities, including: a) accessibility to the latest technological advances, b) the value of conferring with highly trained professionals encompassing all aspects of the technology spectrum, c) implementation of high probability - of – success applications.

Information was gleaned from all of the District's internal service centers, which was then synthesized by the technical information staff and then released to the Purchasing Services staff for final editing and publication of the RFP packet. In using the RFP methodology the District was able to compare different responses to the basic question of how each vendor would approach the task of technology integration and its potential advantages over previous approaches.

If you have any further questions, don't hesitate to contact me further.

Sincerely,

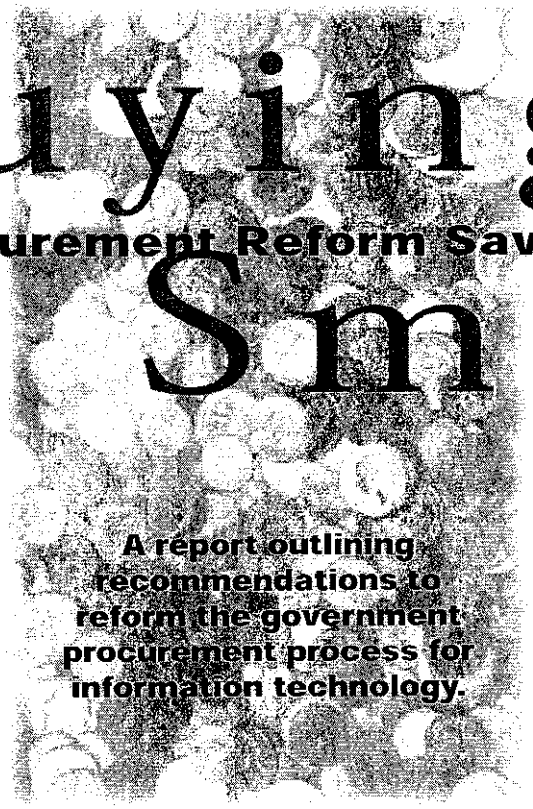
Richard Duncan

Richard Duncan

Ysleta Independent School District

Buying Smart

State Procurement Reform Saves Millions



A report outlining recommendations to reform the government procurement process for information technology.

Simplifying the Procurement of Commodity Items and Services

Building An Infrastructure for Electronic Commerce

Procuring Information Technology Based On Best Value

Developing Partnerships With Vendors

Solving Problems With Solicitations

Produced by a joint task force of the
National Association of State Purchasing Officials and the
National Association of State Information Resource Executives

. . . . . .

The National Association of State Purchasing Officials and the National Association of State Information Resource Executives present this report as a major step in initiating information-technology procurement reform. Buying Smart: State Procurement Reform Saves Millions is a practical, hands-on guide detailing current challenges in procuring information technology, proposed .solutions, and best practices found in the states. As advancements in technology occur at an amazing rate. states must position themselves to keep pace with these changes and to provide procurement methods that assure customers of receiving leading-edge information-technology products and services in a timely and cost-effective manner.

The report is a testament to the value of procurement reform and the direct benefits states across the nation have seen after employing new strategies. A key to each stale's procurement reform success is support from governors, agency heads, legislators and other decision-makers. This report speaks directly to this audience in an attempt to clearly define the issues and to lay the groundwork fir reform.

NASPO and NASIRE firstjoined foxes in 1994, when each determined they shared a common commitment to procurement reform. Together, the associations represent the senior procurement and information-technology officials in the 50 states. the District of Columbia and the U.S. territories.

This most recent report is a continuation of the associations' commitment to actively pursuing reform. In 1995, NASPO and NASIRE collaborated with the Strategic Computing arid Telecommunications in the Public Sector program of Harvard University's Kennedy School of Government in a study that led to a report entitled Information Technology and Government Procurement: Priorities for Reform. The findings and recommendations in this report also benefited from the involvement of the Information Technology Association of America.

A task force of NASPO, NASIRE, and ITAA members pmvidcd oversight for the project. P.K. Agarwal, chief information officer for the California Franchise Tax Board and Gary Lambert, deputy state purchasing agent for the Massachusetts Operational Services Division served as co-chairpersons lor the study. Other taskforce members included: Mike Benzen, chief information officer, Missouri Office of Information Technology; David P. Gragan, director, Indiana Dir'ision of Procurement; John M. Kost, former chief information officer fir the state of Michigan: Greg Layton, Government Technology; Dugan Petty, director, Alaska Division of General Services; arid, Carolyn T. Purcell, executive director, Texas Department of Information Resources.

We hopyou will consider this document for procurement reform in your own state.

Buying Smart: *State Procurement Reform* Saves *Millions*

You've seen the headlines, read the articles and heard the horror stories: State agency installs mission-critical computer system, which fails to perform as promised and is over budget. Losing vendor protests a bid and halts the development of multi-million dollar information system. Agency spends nine months trying to purchase a handful of PCs and ends up spending too much on computers that are already obsolete when they are finally delivered. Something is amiss when state governments procure information technology

Fortunately, state procurement and information technology executives around the country are hard at work, developing plans and launching initiatives to reform how states procure hardware and software. But they can't do it alone. Procurement reform needs help from governors, agency heads, legislators arid other kry decision-makers in order to succeed.

Procurement officials and information technology executives are pushing reform for two fundamental reasons. First. states depend on computers more than ever, spending billions of taxpayer dollars annually to acquire the technology. Second. existing procurement practices and technologs are like two opposing forces. Unless changes are made. they will begin tearing apart the fabric of government, adversely affecting states fiscally and economically.

On the one hand, we have a procurement system that relics on checks and balances to preserve fairness and promote full cornpcrition so that goods and services can be purchased at the lowest possible cost. Without a doubt. the public pmcurcmcnt systcin has equity and integrity, but it can be slow.

Information technology. on the other hand, is one of the most volatile industries in the world. Today's PC computers hare the same raw computing power that existed in mainframes built 10 years ago, yet the cost of the PC is a mere fraction of yesterday's big iron computers. Software development is just as fast-paced. Today, it's not unusual for software vendors to turn out entirely new versions of their products within a six-month time frame.

Not surprisingly, many of the procurement processes and policies used by state governments today — competitive bids. pre-specification of requirements, manual systems for bids and proposals, short-term vendor relationships, to name a few examples — work poorly, or not at all. with the fast-paced. complex field of information technology.

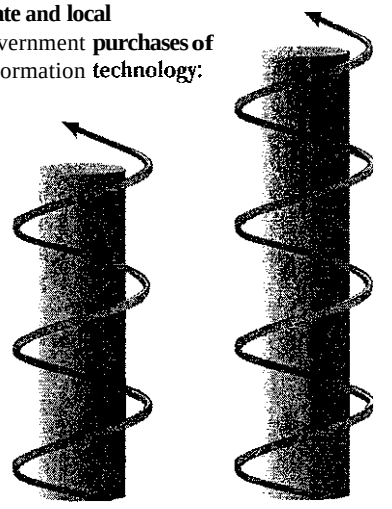
The federal government. facing similar problems, has already taken significant steps to reform its procurement system in order to get better value out of the $25 billion it spends annually on information technology. In February 1996. the President signed into law reform measures that make procurement faster and more efficient, give more discretion to agency and employee purchases of technology and overhaul the appeals process for bid protests.

Now. state governments are responding to the need for changc. Numerous state procurcrncnt offices have taken steps to reengineer the procurement process reducing the time it takes lo procure information technology, streamlining the layers of review and oversight, allowing managers more discretion for small purchases. broadening relationships with vendors and awarding bids based on best value.

But implementing these changes is not easy. State procurement and technology executives need support to enact these changes. Other states. which are still procuring technology in ways that are inefficient and costly to taxpayers and businesses. need leadership to reform how they purchase technology Procurement reform as it affects information technology needs to move forward. Here's why — and how — you'll want to act on information technology procurcmcnt reform today.

The Upward Spiral of Government Spending

State and local government **purchases of** information **technology:**



Source G2 Research Inc

The High Cost of Public Procurement

Several years ago. the state of Texas undertook a study that compared the cost of procurement in the public sector with the private sector. They found that governments spend an average of 5.5 cents to process every dollar of procurement while the private sector spends just I cent per dollar to do the same.

If you project those numbers against what state and local governments spent on technology in 1995, you'll find that it costs states, cities arid counties as much as $1.9 billion to process **$34.5** billion in technology procurements. But if their processing costs were **as** low **as** the private sector's, state and local governments would have spent only **$345** million to procure the same amount of technology, a savings of $1.5 billion dollars. a cost reduction of nearly 80 percent!

Another way to look at the problem is rhe high cost per transaction. Some state procurement officials point to the $75 to $100 it costs in labor and paperwork just to process a single transaction, whether it's to buy a software program, a printer or a microcomputer. Either way, the bottom line adds up to a procurement system that *costs* your government more money than it should.

Priorities for Procurement Reform

1. Faster, more timely procurement
2. Better procurement planning
3. Secure better value relative to the price of goods and services procured
4. Better use of information technology within the procurement process

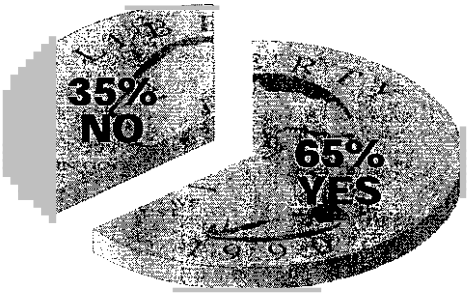
Source: 1995 Harvard University Survey of government officials and private sector vendors

Besides the expense and waste. today's unreformed procurement systems are a drag an the economic well-being of states. With its enormous budget and influence. your government sets the tone for **a** state's economic vitality and progress. A procurement system that is slow and inefficient sends a strong signal to the business community that your state is unable or unwilling to compctc in today's fast-paced econoniy.

Conversely, a state government that has reformed its procurement system and uses tlic latest techniques, such as an electronic bidding system on the Internet, creates a healthier economic environment. These states send out a positive message to tlic business community, showing how economically savvy the? are. while governments that operate wing decade's old procurement processes based on manual systems are **less** likely to have such an impact.

In this new global economy, states must rely upon all available tools to attraci investment and development. By reforming **your** procurement system and using the technology of electronic conimerce, you can help unleash the strength and competitiveness of your state's economy.

Have State Government Procurement Systems Become A Major Problem?



Source: 1995 Harvard University Survey of 1000 participants in the government technology or procurement communities.

Finally, the problems that bedevil your procurement system end up diminishing the delivery of services to citizens and businesses. Without a doubt. information technology can help a state provide more services — cost-effectively — than by manual means. Rut if your procurement system slows the acquisition of technology, resulting in the implementation of computer systems that are obsolete or don't perform as they should. then your government's ability to automate and improve service delivery **has** been compromised.

Taxpayers and businesses interact with responsive customer services every day because private sector firms have automated. reengineered and improved the way they provide services. These customers expect the same from government.

With many states stili applying procurement practices used since World War II. however. it has become extremely hard for procurement and technology executives to purchase high-tech computer systems that can improve service delivery. **Our** economy, government and services have changed significantly since the 1940s. Shouldn't procurement do the same?

Cashing In On the Benefits of Procurement Reform

lust a **few** short years ago. it **was** difficult. if not impossible, to find an example of procurement reform in state government. Today, a growing number of states are tackling their procurement problems on several fronts. **All** are making progress, bur it's **clear** thar no one solution will work for all 50 states. Differing laws, regulations, **as** well as politics and economics, can **affect a** state's approach to procurement ***reform.***

What has emerged from the work conducted by states so far and from the books and reports written on the subject, is a consensus on several key reforms that can **have** the greatest impact on improving governmerir procurement systems.

Here are the leading efforts at procurement reform and how some states hare put these best practices into action:

1. Simplifying the Procurement of Commodity Items and Services

PROBLEM:

Certain types of computer hardware and software have become commodity products in recent years. The prices for PCs, for example, are extremely conipetitive and continue to drop because of market pressures. At the *same* time, their performance also has improved significantly.

Yet many state governments are unable to benefit from the values and savings brought on by the marketplace because their procurement system processes **all** computer purchases the same way through competitive bids based on elaborate specifications and equally elaborate responses by vendors. By **the** time the process is completed. government agencies end up with commodity hardware **and** software that costs significantly more **than** it would down at the local computer store.

SOLUTION

States should learn to distinguish commodity products **from** non-commodity products in the information technology field and then simplify the acquisition of commodity items, such as PCs, printers and office automation software, through the use of catalogs, master contracts, state stores and the like. States should **also** eliminate bidding for small purchases of commodity items so that the hcnefits of the technology can be realized without delay, **and** the cost of the acquisition can be minimized for both agency users and procurement stair.

Who's Benefitting From Commodity Procurements:

The **state** of Texas has simplified the procurement of cornpurer technology through its Qualified Information System Vendor Catalogue. which are product listings by vendors who have been screened by the state. Once a vendor's catalog has been accepted. agcncics can then negotiate prices for listed products.

California has developed the Multiple Award Schedule (CMAS), which allows agencies to purchase items from companies wirh federally-approved (GSA) product schedules. This has had **the** effect of broadening choices and speeding up the acquisition **of** computer ***products*** and services at the best price. Agencies transactions with CMAS can reach $250,000 without having to go through the traditional bid process, saving them time and speeding the acquisition **of** time-sensitive technology

States should learn to distinguish commodity products from non-commodity products and then simplify their acquisition.

North Carolina has posted request for proposal information, PC/peripheral and other commodity pricing on the state's Department of Administration Web site. The end result has been **a** system that offers more flexibility, efficiency and choices for buyers. Price information may be updated within **24** hours rather than monthly and is available to connected state agencies. towns, cities. public schools. state universities and hospitals. Buyers **are** able to comparison shop among current vendor offerings on an "apples to apples' basis. creating greater competition and better prices. Quality is assured through a Qualified Providers list.

Several other states. including Michigan. use master contracts, which **scrvc** a large number of agencies, reduce the number of procurements and. through economies of scale, drive better bargains. Currently, Michigan has one master contract for all desktop computing prnducts and services. Prices are exceptional because of the huge volume and the lack of any contract management costs lor user agencies.

2. Building An Infrastructure for Electronic Commerce

PROBLEM:

State governments rely on manual system to identify products for procurement, advertise contracts open Tor bid and to process purchase orders and invoices. The system is time consuming. costly and fraught with error.

SOLUTION:

Electronic commerce has already caught on as a cost-effective and efficient method for ordering goods and services and for making payments in *the* private sector. Now it's expected *to* become an aid for governments and economic development.

Electronic commerce involves the restructuring of existing procurement systems and the development of computer networks to exchange order and payment data. Governments also need to develop electronic databases ofsolicitations,product pricing information, and other pertinent procurement information so that vendon and other interested parties can view and respond to proposals electronically over the Internet.

Who's Engaged In Electronic Commerce:

Texas and Massachusetts have both set up projects involving electronic data interchange – the computer-to-computer exchange of order and payment transactions for specificgoods and services.

Several states. including Oregon. Texas and hlassarhusetts. have set up databases of information on solicitations that are available over the Internet. This form of electronic commerce will allow states to reach a much larger number of bidders. thereby increasing the competition for high-quality goods and services.

Since 1992, Oregon has allowed vendon to access, view and download state solicitations for bids using a PC and a modem. No longer having to conduct mass mailings to vendon for every bid opportunity, the state of Oregon saved $1.3 million in paper and personnel costs. Oregon also estimates it has saved approximately $33 million over prices thanks to increased competition from vendors since going online.

Indiana conducted a nine month rest ending in 1996 to investigate an electronic commerce environment in their stare. The results, with 150 vendors particioatinein five commodity areas, were even greater than anticipated. Not only did the state conduct live solicitations and awards via electronic data interchange. hut the involved vendon have continued to ask the State to roll out a fully operational system.

3. Procuring Information Technology Based On Best Value

PROBLEM:

Your government's procurement system is driven hy tlie need to be as objective as possible when decidingwtiichvendor wins a contract. To maximize that objectivity, cost is given extraordinary weight in the selection process. When yon award a contract based on the lowest bid, too often you end up with a product that is low in quality. high in risk and fails to meet rhc needs of tlie agency.

This issue is especially important regarding the procurement of information technology. As your state increases its reliance on computers and telecommunications, it is critical that information systems are built with quality, arc reliable and supported by reputable vendors. Awarding technology contracts based on low-bid can turn into a high-stakes gamble for developing computer systems that are completed on time arid are reliable.

SOLUTION:

Procurements based on best value take into consideration a variety of factors. including the life cycle cost of equipment, the past performance of vendors and their ability to successfully complete the contract on time. The state of Michigan often uses scoring models in which price is less than 33 percent of the total score for selecting a vendor.

For some states increasing the emphasis on best value procurements may simply require some astute leadership and training of government officials on how to apply "non-objective" requirements to the selection process. For other states, new legislation may bc required.

Who's Using Best Value:

The state of Texas has been applying best value to its information technology procurements since 1993. The values include life-cycle costs. employee productivity improvements arid vendor performance.

The Commonwealth of Massachusetts recently reformed its procurement policies and procedures. The changes einponcr departments to procure goods and services at best value. Their handbook states: "...higher quality may bc more cost effective over time when compared to a lower quality, less costly procurenlent. Long-term investments, as appropriate and necessary, and long-term value are also important comiderations beyond cost...."

4. Developing Beneficial Partnerships With Vendors

PROBLEM:

Stategovernments avoid strategic alliances with vendon to discourage the perception of favoritism. This is evident in the many state laws that impose short time limits on a contract between a state and a vendor. These efforts at objectivity and neutrality serve their purpose for procurements of traditional goods and services, hut have not worked well with procurement., of complex technology.

Computer technology vendors. with their experience and expertise, are dependable sources of high-quality, technical and managerial assistance. yet few states can take advantage of these resources because of contract tenn limitations. This leaves stater in the predicament of attempting to procure technology for mission-critical systems without *the* benefit of a strategic partnership to share risk and add value to the procurement, beyond rhe initial specifications.

Traditional relationships with vendon under contract often veer towards trouble because of the existing procurement process. Government often ends up bearing the financial risk of rhe project and paying the contractor's costs for change orders. Protests, hearings and delays can ensue. resulting in a system thar costs *more* than estimated, has fewer benefits and uses out-otdate technology.

SOLUTION:

State governmentsmust be more flexible when it comes to determining the length of time that a contract **should** exist. The issue is to create a partnership whereby communication with a vendor promotes better understanding of state government needs and result in longer-term contracts (not necessarily focused on creating additional responsibilities for the vendor but instead focused on promoting continual improvement of services) .Longer-term contract should be designed to create partnerships with a vendor that will promote better understanding of state government needs and allow For assessment of how the contract is performing thus ensuring that the vendor is working towards meeting the requirements of state government and continually improving.

A better understanding of the needs and requirements through the partnership proccss should lead *to* more efficiency and effectivenesson the part of the vendor to meet state government needs. For example. the vendor must be willing to undergo an assessment conducted by the state or participate in a designated assessment process to provide evidence to the state of continuous improvement. This approach may result in higher first year costs hut lead io reduced costs in succeeding years and greater efficiency hecause of the partnership process. **The** ability to get work done should be increased and the processes simplified because the supplier should be continually improving **as** a result of regular assessment. Contract extensions should be contingent upon assessment results. Additionally, assessment results could be a factor for selecting vendon when changes of scope occur.

Who's Forming Partnerships:

The state of Michigan routinely adds **work** to contracts if it is in the state's best interest. The state also makes **extensive use** of negotiations rather than competitive bidding to dramatically reduce the amount ***of*** time required to get essential work completed in the field of information technology. Michigan is able to do this by using the RFP to describe the nature of the problem — not the *solution* — by narrowing the number of categories of criteria. **making** it easier to compare the different solutions offered by the vendon and by **using** the **process** of "best and final offer" to move the negotiation process swiftly to conclusion.

State governments must be more flexible when it comes to determining the length of time that a contract should exist.

The California Franchise Tax Board *formed* a *strategic* partnership with two qualified **vendors** in order to upgrade and replace their tax collection system. Rather than draw up detailed hid specifications. the Tax Board presented pre-screened vendors with a statement of their problem and asked for responses in the form of workable solutions **Once a** vendor was selected. the contract was then negotiated The Tax Board financed the project from the savings and new revenue generated by **the** benefits of automation.

For one oftlie three systems installed under the partnership. the payback was five times higher than what **was** originally estimated. As **a** result. the vendor was paid back for its investment in five months rather than two years. The projcct took only four months to complete compared *to* the avcragc 18 to 24 months for a projecr of this size

5. Solving Problems With Solicitations

PROBLEM:

Too often. agencies issue solicitations for bids that include detailed specifications for the final product. This works fine for simple commodities. but not for complex computer systems, where more than one solution to the problem may exist.

Detailed bid specifications limit or preclude vendors from proposing their best solution. Instead. vendors propose only the solution that the agency has requested. These bids **also are** difficult for an agency to write, requiring exhaustive research and development to determine the best solution.

SOLUTION:

Write bids that briefly state the problem without the need for detailed specifications. Vendon. who are the subject matter experts, **can** use their discretion and creativity to offer **an** innovative solution rather than simply replicate the agency's specifications. Vendon, who offer a solution of their own design that they believe will work. are more willing to share in the project's risk.

Risk sharing is considered an important step in helping large. non-commodity procurements of technology to succeed. Governments can structure agreements where the vendor/partner is paid part or all of the lee based on achieving a desired outcome. Another option involves payment to the vendor/partner based on a percentage of savings generated by die new computer system or a percentage of increased collections (computer systems that identify businesses that haven't paid certain taxes, for example).

Who's Writing Problem-Oriented Bids:

Michigan **has** slimmed down the development of its bids. cutting the time it takes to draft a Request for Proposal (RFP) from weeks or even months to just houn. The California Franchise **Tax** Board also stated its bid in the form of **a** problem rather than specifying the details of the bid. The Board rcporrcd significant benefits from the new approach *(see "Who's Forming Partnerships" on page 5).*

A Successful Procurement Is One Which:

- Is driven by results or outcomes
- Generates the best quality economic value
- Is timely
- Minimizes the burden on administrative resources
- Expedites simple or routine purchases
- Allows flexibility in developing alternative procurement and business relationships
- Encourages competition
- Encourages the continuing participation of quality vendors
- Supports Commonwealth and Department plans

Source: The Commonwealth of Massachusetts Procurement Policies and Procedures Handbook

Getting Started With Procurement Reform

Lower costs. Better business practices.

An infrastructure for 21st Century electronic commerce. improved services **for** taxpayen. The benefits of procurement reform are clear and compelling. Yet the move from inertia to action may seem complicated. Every state has different circumstances, different needs. No single approach to reform will work for all state governments. Instead. take a look at how several states began their reform efforts and share their ideas and plans with your key government officials to get the ball rolling:

- The state ***of*** Alaska formed **a** Procurement Advisory Council. which reviewed all procurement-related statutes, regulations. policies and practices. The Council, which consists of all major stakeholders in the state, **as** well as some leaders from the private sector, identified those elements of procurement that weren't effective and began to restructure thcni through re-engineering and **new** legislation.

  The state recently adopted changes *to* its model procurement code based on broad concepts for procurement reform, including best value, partnerships and past performance **as** a crircria.

- The Commonwealth of Massachusetts formed a purchasing work group, consisting of several departments. including the Department of Procurement and General Services and the Office of **the** Comptroller, and established a procurement ***program*** *based on* ***a*** *number* of *reform* initiatives.

  The work group changed the state's **procurement** emphasis from low bid to best value. combined four separate state regulations on procuremenr. running nearly 100 pages long, into one regulation just seven pages in length, issued **a** new procurement policies and procedures handbook and developed **an** electronic clearinghouse for proposals and solicitations available over the Internet. Other changes added greater flexibility to the state's procurement process.

- The state **of** Michigan created the post **of** chief information officer (CIO) arid gave the position control of procurement as it relates to information technology. Not restricted by any state laws governing procurement. the CIO **has** introduced **a** number of new procurement strategies, including master contracts, vendor partnerships, best value procurements and flexible acquisitions, which can range from multi-year contracts with a single vendor to using a credit card for small purchases. The CIO handles responsibility for the procurement of all major information technology systems. while allowing agency users the discretion to make smaller procurements.

- The governor's office in the state of Indiana formed a quality driven team comprised of the state procurement director and **key** staff members of 14 customer agencies to review the procurement system and find ways of streamlining the procurement process. After a detailed review of the way procurements **haw** traditionally been conducted in that state, the team received the governor's approval in July 1996 to implement **several** recommendations, including more purchasing authority granted to agencies, adequately trained and staffed to fulfill the requirements for seeking the best value in purchases. Thir new purchasing environment **will** become effective in October 1996, and will substantially decrease the time required to make most purchases below $25,000 while, at the same time. ensuring agencies get the products they need and vendors get paid more rapidly.

The benefits of procurement reform are clear and compelling.

Yet the move from inertia to action may seem complicated.

Putting Procurement Reform Into Action

Every state has its own methodology for problem solving. What follows are some **tips** taken from real experiences **and** studies of procurement reform and information technology:

- Identify the stakeholders. Include those from procurement, information technology and **user** agencies. Consider input from the business community.
- Talk with states that have already reformed their procurement systems.
- Become familiar with the range of procurement reform strategies that can benefit your government. (NASPO and **NASIRE** trave identified more than **40** problem areas **in** procurement and ways to reform them.).
- Draft **a** list of goals for procurement reform.
- Develop a strategic plan.
- Roll **out** reforms. Start with those that will have the most immediate effect **arid** best payback.

Resources

This report **has** been **developed** by **the**
National Association of State Information Resource Executives
and the National Assoriation of State Purchasing Officials
as part of a Joint Information Technology Procurement Project.

For more information on how **you can** begin procurement reform. **please** contact:

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The report and additional best practices may be found at the NASPO and NASIRE homepages:
http://www.state.ky.us/nasire/NASIREmain.html
http://www.naspo.org

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NATIONAL GOVERNORS ASSOCIATION

Reforming State Procurement to Buy the Best Information Technology Solution

The procurement methods used by many states to buy information technology (IT) are obsolete. New state procedures are needed to speed the process for buying IT systems, ensure that the best solutions are obtained, and avoid costly failures.

For many states, the procurement methods used to buy information technology are obsolete. Rules enacted over time to protect states from contractual abuses have led instead to complex procedures that consume time and money and often result in the purchase of outdated equipment.

Major changes to state procurement policies must be made to meet the needs of an information technology (IT) world. The contracting process must incorporate flexibility, common sense, and a recognition that IT products and services are rapidly evolving. New approaches must speed the process for buying IT systems, ensure that the best solutions are obtained, and avoid costly failures. States can use several approaches to improve the timeliness, efficiency, and quality of IT purchases.

- Write solution-oriented bids that **ask** vendors to propose an IT business solution to state-identified problems and goals. Traditionally, states have spent considerable resources crafting their own solution and then asking vendors to meet the precise requirements specified by the state. This often has led to projects becoming obsolete before they start and made changes costly. Solution-oriented bids define the business problem to be solved and take advantage of the private sector's expertise and creativity in crafting a response to the problem.
- Use value-based purchasing to judge the merit of one proposed solution relative to another. Under value-based purchasing, government buys the best IT solution available, not the solution that only costs the least. In judging contract proposals, value-based purchasing enables states to consider total life-cycle costs, quality, vendor performance, and other benefits, such as revenue generated and improved technical merit.
- Form long-term strategic partnerships with qualified vendors. Strategic partnerships enable states to work with qualified vendors to solve specific IT problems in government over time. ***An*** initial process **asks** vendors to demonstrate their qualifications to serve as partners. Then work can be executed through streamlined, solution-oriented contracts.
- Share risks and benefits with vendors to avoid failures and improve the performance of large, complex contracts. States are devising new approaches, such as paying contractors through savings generated by IT solutions, having vendors pay for a system's installation and reimbursing them through the purchase of services supplied, and making payment contingent on the benefits realized to the state. In addition, states are beginning to divide large, complex **IT** projects into smaller discrete tasks to improve oversight and judge progress.
- Create a pool **of** qualified vendors to make day-to-day hardware and software purchases more cost-effective. Such vendors must meet certain standards and procedures when selling products to the state, have a single point of contact for all price quotes and services, and meet state-specified computer standards to ensure system compatibility. Authorized state employees can then simply purchase preapproved products from any of the precertified vendors.

Procurement reform can be one of the strategies to achieve the Governor's IT vision for the state. However, for procurement reform to reach its **full** potential, it must be part of a systemic reform of how the state governs, buys, and deploys information technology. This includes naming a state chief information officer (CIO) who has statewide authority over computer architecture, goals, and procurement.

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Center for Best Practices
Contact: John Thomasian, 202/624-5300
August 9, 1999

Reforming State Procurement to Buy the Best Information Technology Solution*

Summary

For many states,. the procurement methods used to buy information technology are obsolete. Rules enacted over time to protect states from contractual abuses have led instead to complex procedures that consume time and money and often result in the purchase of outdated equipment.

Major changes to state procurement policies must be made to meet the needs of an information technology (IT) world. The contracting process must incorporate flexibility, common sense, and a recognition that IT products and services are rapidly evolving. New approaches must speed the process for buying IT systems, ensure that the best solutions are obtained, and avoid costly failures. States can use several approaches to improve the timeliness, efficiency, and quality of IT purchases.

- Write solution-oriented bids that ask vendors to propose an IT business solution to state-identified problems and goals. Traditionally, states have spent considerable resources crafting their own solution and then asking vendors to meet the precise requirements specified by the state. This often has led to projects becoming obsolete before they start and made changes costly. Solution-oriented bids define the business problem to he solved and take advantage of the private sector's expertise and creativity in crafting a response to the problem.
- Use value-based purchasing to judge the merit of one proposed solution relative to another. Under value-based purchasing, government buys the best IT solution available, not the solution that only costs the least. In judging contract proposals, value-based purchasing enables states to consider total life-cycle costs, quality, vendor performance, and other benefits, such as revenue generated and improved technical merit.
- Form long-term strategic partnerships with qualified vendors. Strategic partnerships enable states to work with qualified vendors to solve specific IT problems in government over time. *An* initial process asks vendors to demonstrate their qualifications to serve as partners. Then work can be executed through streamlined, solution-oriented contracts.
- Share risks and benefits with vendors to avoid failures and improve the performance of large, complex contracts. States are devising new approaches, such as paying contractors through savings generated by IT solutions, having vendors pay for a system's installation and reimbursing them through the purchase of services supplied, and making payment contingent on the benefits realized to the state. In addition, states are beginning to divide large, complex IT projects into smaller discrete tasks to improve oversight and judge progress.

- Create a pool of qualified vendors to make day-to-day hardware and software purchases more cost-effective. Such vendors must meet certain standards and procedures when selling products to the state, have a single point of contact for all price quotes and services, and meet state-specified computer standards to ensure system compatibility. Authorized state employees can then simply purchase preapproved products from any of the precertified vendors.

Procurement reform can be one of the strategies to achieve the Governor's IT vision for the state. However, for procurement reform to reach its full potential, it must be part of a systemic reform of how the state governs, buys, and deploys information technology. This includes naming a state chief information officer (CIO) who has statewide authority over computer architecture, goals, and procurement.

Traditional Procurement Systems and Practices Are Problematic

Most state and private IT professionals cite the following problems in state procurement systems used to purchase information technology.

- The process takes too long
- Vendors are given overly complex and detailed specifications to meet when designing and installing a system. Often, original project specifications must be renegotiated during system development.
- Proposals are judged chiefly on cost, not on their overall benefit to the state.
- All risks tend to be assigned to the vendor, and rewards are not used to spur performance

Today's state procurement systems reached this point because they are largely built on mistrust. They assume that without rigorous procedures and layers of oversight, government workers cannot be trusted to make the right decisions. Many of the present rules were enacted to address prior incidents of fraud and abuse between government and contractors. However, the processes implemented to correct these problems now severely hamper states' ability to buy the best IT solutions swiftly and efficiently and no longer shield them from failures. A report by a California task force on procurement notes, "For decades, public trust has been based on the principle of checks, balances, and controls. When failures occur, the typical response has been to add more layers of control. As layers of control are added, the processes instituted to protect the public trust become so cumbersome as to constrain the ability to effectively manage risk."'

The Current IT Bid Process Limits Innovation

Most state IT purchases start badly because the state presupposes a solution and then asks vendors to supply the solution the state has identified. Before bidding even begins, most state agencies spend considerable time designing the IT system it wants and defining the contractual requirements for meeting this design. The design requirements are sent to potential bidders in the form of a "request for proposal" (RFP). To ensure a fair process, interaction between potential bidders and state officials is limited. Bidders are evaluated on their ability or willingness to comply with the detailed design requirements and their cost for completing the contract.

This traditional approach treats the state's purchase of IT goods and services in the same way as its purchase of furniture, supplies, and other durable goods. Years ago this approach

worked because most IT functions were simpler and the pace of change was slower. Most applications involved transforming discrete paper-based functions into automated systems with large amounts of data storage. Such projects usually involved only one division or agency, used centralized applications, and employed the same inputs and outputs as the paper-based processes they replaced. Because computers were not capable of network applications, there was little cross-department interaction and the impact of the project on other data systems was limited. Moreover, updating an automated process usually meant making a change only in a mainframe computer; it did not affect how decentralized personal computers (PCs) worked together.

In contrast, today's IT projects are networked, complex, and often multijurisdictional. The applications can span numerous agencies and diverse technical environments. They support hundreds of users, involve a multitude of processes, and can deliver services to thousands of clients. Projects are often ***so*** large and complex that the full detailed functional and technical requirements of the solution cannot be known in advance and often can be determined only as the system is being constructed. In many cases, the full capabilities of the technology change after the project starts, so requirements must remain flexible.

The Current Process Fails Large IT Projects

Traditional procurement practices fail these large IT projects. The long delay associated with finalizing many complex IT contracts—sometimes a year or more—often means that a project's technical design is obsolete even before it begins. Most decisions also are based on the "bottom line," meaning that a winning bid is judged chiefly on cost, not on its overall benefit to the state.

The current process also does a **poor** job of handling problems encountered during installation. Because the state specifies the solution it wants in its proposal request, winning bids must continue to meet the original project specifications even when the technology, systems, and goals change. Unfortunately, few projects that extend beyond a year can continue without some redesign. Consequently, contractors must renegotiate their agreements, comply with outdated requirements, or bear the expense of making needed changes. **As** the California Task Force on Government Technology Policy and Procurement notes, "The policies **and** procedures instituted to ensure that IT expenditures are appropriate have created an environment in which it takes too long to develop **an IT** solution from conception to implementation; problems or mistakes are not quickly surfaced; projects are subject to delays and cost overruns; more appropriate technologies are often bypassed in favor **of** an outdated solution; and an adversarial relationship between the state and its vendors prevails."[2]

The inefficiencies of the current process also are costly to the state. **A** study comparing the cost of procurement in the public sector with the cost of procurement in the private sector found that governments spend an average of five and one-half cents to process every dollar of procurement, while the private sector spends just one cent of every dollar to do the same.[3]

Moreover, the focus on selecting the contractor with the lowest-cost bid does not always yield the best solution. Projects that have an opportunity to provide greater benefits to the state,

including increased revenue or savings, longer life, and improved services, might be ignored if they are more expensive to install.

Finally, the inflexibility of many traditional contracts can lead to higher installation costs and even failure. Most large and complex IT projects run into problems. Stopping work to renegotiate design specifications needlessly extends the timeframe of many projects. Eventually, the project is completed at a cost higher than anticipated or is abandoned if costs get too high. Although the vendor may be liable in the short run, the state ends up bearing the cost of failure over time, as contracts are cancelled before projects are finished and qualified vendors choose not to bid on future work.

New Approaches Are Needed for IT Procurement

New procurement approaches for information technology must give contractors and agencies the latitude to be creative and design the best IT solutions that government can buy. Private-sector firms and other states already embarking on change can guide the efforts of states interested in reforming procurement practices. Reforms to state government's process for buying IT goods and services should make the purchase of IT hardware, software, and business solutions swifter and simpler; give all projects the opportunity to incorporate the most current hardware and software; ensure that the state receives the best value for its investment; and improve performance in completing large, complex IT projects.

Several procurement changes proposed or in use try to achieve these goals, and many of these approaches can be used together. Innovative approaches include:

- writing solution-oriented bids;
- using value-based purchasing;
- forming strategic partnerships with vendors;
- sharing risks and benefits with vendors; and
- creating a pool of qualified vendors.

Writing Solution-Oriented Bids

Detailed bid specifications limit or preclude vendors from proposing their best solution. States should write bids that *articulate* the problem to be solved and *ask* the vendor to propose a solution. Such bids can be brief and simple. They enable vendors to spend their resources devising a creative solution and states to focus their resources on choosing the best idea, not the closest match to complex specifications.

As John Kost, former CIO for Michigan, points out, "In a reengineered purchasing process, there are essentially only five steps:

- determine the problem;
- have vendors identify possible solutions;
- pick the best solution;

- buy it; and
- explain the decisions (if necessary).''

Several states are using solution-oriented bids. One of the first to do so was Michigan, which began major reform efforts in 1993.[4] Through a simplified bid process, the state has cut the time it takes to draft an RFP from months or weeks to hours. For complex projects, maximum flexibility is maintained to ensure that the state has the opportunity to select **not** only the right vendor, but also the right solution. Further, antagonistic relations with vendors are avoided as much as possible and approaches often are discussed before invitations to bid are published.

The California Franchise Tax Board (FTB) also has examined procurement reform and solution-oriented bids. The FTB believes that solution-oriented bids work best for new technology and high-risk projects because these projects often exceed the capabilities of in-house expertise. Moreover, asking vendors to pose a solution provides them with an opportunity to detail other benefits the state might realize from their proposal.'

Using Value-Based Purchasing

Value-based purchasing requires the state *to* buy the good or service that produces the best overall value. For example, if company A offers to build a system for collecting taxes that costs the state $5 million but yields $10 million in added revenue, then company A's bid has a net value of $5 million to the state. **In** contrast, if the system offered by company **B** costs $10 million but returns to the state more than **$40** million in added revenue, then company B's bid has a net value of more than **$30** million. Under a traditional procurement approach, company A's bid—the low-cost solution—would win the contract. Under value-based purchasing, the state would choose company B, paying more up front hut receiving much more in return over the long term.

Value-based purchasing can take many **forms. In** some cases, the benefit may be measured in an expanded set **of** services provided by one vendor's solution over another. **In** other cases, the winning bid may involve a system with higher initial **costs** but lower life-cycle expenses and easier updating capabilities. Procurement based on best value considers numerous factors, including the life-cycle cost of equipment, the past performance **of** the vendors, and a vendor's ability **to** deliver the good or service on time. Rating these factors may **not** always yield a net benefit to the state, but the rates can be used to compare the net benefits of **various** projects and choose the one that provides the biggest "bang for the buck."

There are many ways to ensure that a state agency practices best-value procurement. **As** the National Association of State Purchasing Officials and National Association of State Information Resource Executives note in their report ***Buying Smart: State Procurement Saves Millions,*** some states may need only "astute leadership and training of government employees on how to apply 'nonobjective criteria' to contract selection."[6] Other states may need new legislation.

North Carolina enacted its "best value" law in 1998 (see Appendix **A).** Signed by Governor James **B Hunt** Jr., the law defines the best-value method as:

> the selection of a contractor based on a determination of which proposal offers the best trade-off between price and performance, where quality is considered an integral performance factor. The award decision is made based on multiple factors, including:

> total cost of ownership, meaning the cost of acquiring, operating, maintaining, and supporting a product or service over its projected lifetime; the evaluated technical merit of the vendor's proposal; the vendor's past performance; and the evaluated probability of performing the requirements stated in the solicitation on time, with high quality, and in a manner that accomplishes the stated business objectives and maintains industry standards compliance.

Several other states have similar laws or regulations that require best-value purchasing to acquire information technology. Additional public-sector examples of putting best-value purchasing into practice include the following.[7]

- Massachusetts used a value-based contract to return an agency from fiscal receivership to financial health. The state contracted with a vendor to create a system for processing federal reimbursements. The contractor agreed to receive payment only if the agency received at least as much money from the new system for processing federal reimbursements ,as it did before project implementation. As the agency became more proficient at processing federal forms, generating more money for the state, the contractor's share of the benefits increased. Agency benefits increased from $120 million annually .to $217 million annually. In addition, the contractor automated the forms processing, making the agency more efficient and saving additional money.
- The U.S. Department of Education used per-transaction contracting to design, build, and run its Direct Student Loan Program. Under the agreement, the contractor built **and** paid for the new system, assuming all risk up front. After the system became operational, the contractor was paid for its services on a per-loan-processed basis. With a clear understanding of the goal, a system was built that should save the department ***$6.8*** billion by fiscal 2000 and return a profit to the contractor.
- In Ontario, Canada, an independent report submitted to the **Ministry** of Community and Social Services indicates that its new welfare system will save $300 million (in Canadian dollars), giving the government a 222 percent return on its investment. The ministry collaborated with a contractor to improve the delivery of social assistance to the needy. As part of **this** project, the contractor agreed to forfeit its fees unless the government realized savings from the firm's work. The savings came from reducing welfare fraud and overpayments (see Appendix **B).**

Forming Strategic Partnerships with Vendors

Forming strategic partnerships between the state and a vendor (or a pool **of** vendors) is another new approach to purchasing information technology. Under this approach, private industry is invited to participate closely with government to develop business solutions for specific areas of governance. A strategic partnership usually involves a long-term relationship in which the state and vendor work together to define, develop, and deliver IT solutions. **In** many ways, strategic partnerships turn traditional procurement on its head. Instead **of** the state maintaining a respectful distance from its vendors and selecting new ones on a per-project basis, the state chooses to work closely with a few vendors on several projects over time.

Under the strategic-partnership approach, the state publishes an initial RFP inviting vendors to become partners. This request usually does not focus on a specific project or ask for a cost proposal; instead, it asks vendors to demonstrate their qualifications for delivering specific types of IT business solutions. The state selects only the vendors that have the resources, expertise, creativity, and financial ability to provide the best solutions for the project areas being bid. The selected qualified partners execute a formal agreement to work in trust, resolve differences through negotiations, and work side by side with the state agency hiring them to craft solutions and projects. Future state agency work is limited to these strategic partners.

Kentucky's Strategic Alliance Services

Kentucky recently incorporated the strategic-partnership approach into its procurement process, calling it "strategic alliance services" **(SAS). As** stated in the initial request to form partnerships:

> It is the intent of these contracts to provide state agencies [with] an avenue to build an ongoing, long-term relationship with a vendor who will provide the necessary expertise and resources to effectively manage and implement information technologies to meet the business needs of the agency. **In** other words, such contractors would become a supplemental workforce to the agency's and state's IT staff.

Kentucky's goal is to establish multiyear strategic alliances to obtain comprehensive IT services throughout the life of any given project. Through a thorough initial bid, the state selects a firm or firms with which to form a strategic alliance for specific IT needs. The work is then implemented through contracts with the alliance firms that can be awarded in an abbreviated and streamlined manner. Innovative risk-sharing procurement mechanisms also are explored through the contracts.

Kentucky's **SAS** has established qualified partners to bid on full-service and niche areas of IT development; niche areas include disciplines as broad as system design and as narrow as printing solutions. Bid requests sent to the alliance partners tend to be short and focused, because the need to demonstrate qualifications is eliminated. **For** example, the key elements of a recent bid request from the state for a complete overhaul of the state's workers' compensation fund were described in fewer than twenty pages. The document included a brief definition of the fund, a description of what the state wants to fix, and a statement of goals for the new system (see Appendix **C).**

Sharing Risks and Benefits with Vendors

Designing, developing, and installing a large-scale and complex IT business solution can be a costly and risky venture if these activities are not managed correctly. Not surprisingly, the traditional procurement and contract management practices used by many states have led to failures of large IT projects. Many agencies have faced the unwelcome prospect of stopping large contracts after significant funds have been expended and before the project has been finished. **In** many cases, the projects are abandoned indefinitely.

California, a state requiring numerous large and complicated IT government services, has experienced several failures in the 1990s. In 1994 the department of motor vehicles stopped a six-year, $55-million effort to modernize its driver's license and vehicle registration systems. In 1997, after spending

$111 million, the state abandoned its effort to establish a statewide tracking network for child support payments.' Such failures are not unique to California, but the price tag for failure may be higher there because of the size of the state and the scope of any application implemented.

Projects that fail hurt the state and the vendor building the project. The state loses money, the vendor usually faces some financial penalty, and both suffer losses in their reputation. Consequently, a key goal of procurement reform is finding ways to make large projects less risky and costly to the state and the vendor through better project management and the sharing of risks and benefits.

Skilled government managers and experienced vendors point to several tules of thumb for managing large IT projects, sharing risk, and avoiding failure. First, most experts agree that procurement reforms such as solution-oriented bids and best-value purchasing are necessary to reduce the problems encountered in large projects. These reforms enable the state to make swifter contracting decisions, take advantage of outside experts, and design payment schemes that reward contract performance and limit state liability.

Second, experts recommend that large-scale projects be broken down into smaller contracts that can be overseen and managed separately. Even if an overall IT solution has been agreed to, it should not be executed through a single contract. Smaller bids enable progress to be measured, adjustments to be made, and, in a worst-case situation, the project to be halted before too much money is spent.

Third, many experts recommend that large contracts be subject to an independent assessment, usually by an outside consultant who represents neither the vendor providing the solution nor the state. Independent consultants can oversee each phase of the project, suggest changes, and warn participants before failures seem imminent. Independent consultants may spot problems more quickly because they do not have an investment in the project's outcome.

Finally, the most effective way to encourage success and limit failure is to share risks and benefits with the vendor. Best-value purchasing options such as the following can be useful in this regard.

- Pay the vendor wholly or in part through savings generated by the IT business solution (see Appendix **B).**
- Require the vendor to cover the installation cost of the project and pay the vendor back by allowing it to charge for the services rendered. For example, a vendor could be reimbursed from the application fees charged under a newly developed state motor vehicle licensing system.
- Pay the vendor, in part, only after measurable benefits are accrued by the state. For example, vendor payment could depend on a new automated tax system's demonstrating an increase in tax processing.

Creating a Pool of Qualified Vendors

States are increasingly recognizing the inefficiencies of multiple agencies independently buying off-the-shelf hardware and software to support basic state office systems. Computers purchased in this manner are sometimes incompatible with other state computers, opportunities for volume discounts are missed, and multiple vendors often are needed to obtain the desired goods and services. When a systemic reform effort includes naming a statewide chief information officer, he or she can establish

procedures to speed and simplify commodity purchases and ensure that all state agencies buy compatible hardware and software for desktop systems.

States are using two approaches to speed and simplify the purchase of everyday IT goods and services. The first approach is to establish a pool of certified vendors from whom state employees may order hardware and software. Each certified vendor is required to have a single point of contact for all purchases and simplified invoicing systems. The second approach also uses a pool of certified vendors but expands the concept by having the vendors offer their goods and services through a web-based catalogue that is accessible to state employees.

The Arizona Government Information Technology Agency (GITA) recently began implementing simplified purchasing procedures for microcomputer hardware, software, and peripherals. The goal of its Asset Management Program is to reduce Arizona's costs for purchasing microcomputers and off-the-shelf products. The state found that it maintained more than 30,000 PCs and laptops. Its costs for hardware alone exceeded $50 million annually. To acquire basic desktop products and services, each state agency would make purchases from several vendors under several different contracts. In addition, many other political entities, such as cities and schools, purchased products and services under the state's microcomputer contracts. This haphazard approach resulted in duplication of effort, interoperability problems, and cost inefficiencies.

The new Arizona strategy aims to correct these problems. The Asset Management Program enables state agencies to quickly determine prices on a comparable set of goods across vendors, make timely purchases, and receive volume discounts. In addition, all purchases must conform to hardware standards that apply to all users.

Arizona's Asset Management Program

Key elements of Arizona's Asset Management Program include the following.

- **A pool of qualified vendors.** The state qualifies and enters into contracts with a limited number of microcomputer vendors. The contracts allow state agencies to purchase or lease microcomputer hardware, software, and related services.
- **Single point of contact for all purchases.** Each vendor is required to provide a single point of contact for the purchase of all products and services. Each state customer can call one number per vendor and order all products and services from that contact.
- **One-stop shopping.** Each vendor is required to provide an extensive list of products and services to all state agencies, enabling them to use only one requisition and purchase order when filling procurement needs.
- **Standards.** All products offered by qualified vendors must conform to personal computer standards established by the Arizona Government Information Technology Agency to ensure compatibility across all parts of Arizona government.

A web-based catalogue of qualified vendors extends the concept of a qualified vendor pool. This approach dramatically speeds up the process for obtaining and comparing bids and reduces the amount

of paperwork needed to fill orders. Qualified vendors provide online catalogues with products and prices tailored to each state's contract. The online purchasing system is accessible on the Internet as well as through each participating state's intranet.

Massachusetts has pioneered this approach through its E-Mall pilot project. The project is a multistate, Internet-based electronic procurement system that offers authorized employees of participating states a direct way *to* locate and purchase products from prequalified vendors. Products are not limited to microcomputers and software; the E-Mall is designed to eventually fulfill all state purchasing needs. Scheduled *to* end on September **30,** 1999, the E-Mall pilot includes four other states—Idaho, New **York,** Texas, and **Utah.** California also is implementing a similar web-based procurement system *to* speed and simplify its purchases through electronic ordering from vendors.

Procurement Reform Can Work

States serious about changing the way they purchase IT goods, services, and systems cannot expect *to* do so overnight. Developing solution-oriented bids, determining the best value, sharing risks and benefits creatively, and simplifying everyday commodity purchases require leadership, training, and a shift in philosophy and, often, culture. Moreover, changing the way information technology is purchased in one agency without changing it in all agencies could yield little, if any, improvement. As Ron Ridderbusch, a former deputy state CIO notes, "The problems and solutions of procurement reform have been documented, discussed, and argued for nearly a decade. The problem is implementation. State leaders must be committed *to* change."'

To be successful, procurement reform must be part of a larger effort **to** change how the state manages, purchases, and deploys information technology. This type of systemic reform includes several steps. First, the state must name a CIO. The state CIO should be responsible for establishing computer system standards across the state and for creating procurement guidelines for all agencies. He or she should also be given the authority to enforce the standards and guidelines. **In** addition, a state CIO must have the confidence and ear of the Governor and be able to implement the Governor's vision for the state's use of information technology. Creating this position and giving the CIO the authority necessary for success can be difficult. Agencies will be reluctant to relinquish their authority to independently design computer architecture or change the way they purchase information technology equipment and systems. (The position and responsibilities of the state CIO are explored in "Managing State Information Technology: Defining the Role **of** the CIO."[10])

Second, procurement reform must be implemented statewide. Adequate training must be given to those using and overseeing procurement, and authority must be given to those wanting to implement changes. Many new practices will require that line employees be empowered to make decisions and engage in negotiations, so procurement reform can meet with resistance from those accustomed to layers of management review and approval.

Finally, and most importantly, the Governor needs to establish a vision for how the state will use information technology. As the state's chief executive and as a manager of the business of government, the Governor can identify opportunities for state action to improve service delivery to citizens. It then becomes the responsibility of the state CIO to determine what role information technology can play in transforming government to achieve this vision.

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* The following individuals provided valuable contributions to this Issue *Brief*: Christopher Quarles and David Shaw of Andersen Consulting in Washington, D.C.; Robert Tyre of Andersen Consulting in New York; Milford Sprecher of SAP America Public Sector in Washington, D.C.; Marc Rosen, a consultant in Arlington, Va.; and Bill Thomas of Deloitte & Touche Consulting Group in Cleveland, Ohio.

[1] California Franchise Tax Board, ***Performance Based Procurement: Another Model for California,*** February 1995, rev. March 1998, at <http://www.ftb.ca.gov>.

[2] Ibid.

[3] National Association of State Purchasing Officials and National Association of State Information Resource Executives, ***Buying Smart: Stare Procurement Saves Millions,*** December 1998, at <http://www.naspo.org/index.html>.

[4] John M. Kost, New ***Approaches to Public Management: The Case of Michigan,*** Publication CPM-I, (Washington, D.C.: The Brookings Institution, July 1996).

[5] California Franchise **Tax** Board.

[6] National Association of State Purchasing Officials and National Association of State Information Resource Executives.

[7] David Shaw, Andersen Consulting, correspondence with John Thomasian, 20 January 1999.

[8] Virginia Ellis, "State Kills Project to Link Welfare Networks," *Los Angeles* Times, 14 July 1999.

[9] Ron Ridderbusch, former deputy CIO for California, correspondence with John Thomasian, 27 July 1999.

[10] "Managing State Information Technology: Defining the Role of the CIO," ***Issue Brief*** (August 9, 1999) National Governors' Association, Washington, D.C.

Appendix A: North Carolina's "Best Value" Law

Background

North Carolina moved away from "low-bid information technology (IT) acquisitions when the legislature passed a "best value" IT procurement bill, which was signed into law by Governor James B. Hunt Jr. in October 1998. The law became effective December 1, 1998. The new law mandates that the state's acquisition of information technology be conducted using the best-value procurement method, which is defined in the bill as the proposal that "offers the best trade-off between price and performance, where quality is considered an integral performance factor." Among the factors that must be considered in awarding a contract are total cost of ownership; technical merit; past performance; and the probability of performing the requirements stated in the solicitation on time, with high quality, and "in a manner that accomplishes the stated business objectives and maintains industry standards compliance."

In addition, the new law stipulates that when an acquisition is deemed to be highly complex or when it is determined that the optimal solution to the business problem is not known, then the use of "solution-based solicitations" and "government-vendor partnerships" is authorized and encouraged. A solution-based solicitation means one in which the requirements are stated in terms of how a product or service that is being acquired should accomplish the business objective, rather than in terms of the technical design of the product or service.

The complete text of the new law follows.

Text of Law

GENERAL ASSEMBLY OF NORTH CAROLINA, SESSION 1997, SESSION LAW 1998-189, HOUSE BILL 1357

SIGNED BY THE GOVERNOR AND ENACTED OCTOBER 12,1998

AN ACT TO PROVIDE FOR "BEST VALUE INFORMATION TECHNOLOGY PROCUREMENTS.

The General Assembly of North Carolina enacts:

Section 1. Chapter 143 of the General Statutes is amended by adding a new section to read: "§ 143-135.9. 'Best Value' information technology procurements.

(a) For purposes of this section:

(1) 'Information technology' includes electronic data processing and telecommunications goods and services, microelectronics, software, information processing, office systems, any services related to the foregoing, and consulting or other services for design and/or redesign of business processes.

(2) 'Best Value' procurement means the selection of a contractor based on a determination of which proposal offers the best trade-off between price and performance, where quality is considered an integral performance factor. The award decision is made based on multiple factors, including: total cost of ownership, meaning the cost of acquiring, operating, maintaining, and supporting a product or

service over its projected lifetime; the evaluated technical merit of the vendor's proposal; the vendor's past performance; and the evaluated probability of performing the requirements stated in the solicitation on time, with high quality, and in a manner that accomplishes the stated business objectives and maintains industry standards compliance.

(3) 'Solution-Based Solicitation' means a solicitation in which the requirements are stated in terms of how the product **or** service being purchased should accomplish the business objectives, rather than in terms of the technical design of the product or service.

(4) 'Government-Vendor Partnership' means a mutually beneficial contractual relationship between State government and a contractor, wherein the two share risk and reward, and value is added to the procurement of complex technology.

(b) The intent of 'Best Value' Information Technology procurement is to enable contractors to offer and the agency to select the most appropriate solution to meet the business objectives defined in the solicitation and to keep all parties focused on the desired outcome of a procurement. Business process reengineering, system design, and technology implementation may be combined into a single solicitation.

(c) The acquisition of information technology by the State of North Carolina shall be conducted using the 'Best Value' procurement method. **For** acquisitions which the procuring agency and the Division of Purchase and Contracts deem to be highly complex **or** determine that the optimal solution to the business problem at hand is not known, the use of Solution-Based Solicitation and Government-Vendor Partnership is authorized and encouraged.

Section **2.** The Division of Purchase and Contracts shall develop and implement no later than December **31, 1998,** policies and procedures to ensure the use of "Best Value" Procurement and, as applicable, Solution-Based Procurement and Government-Vendor Partnership in the procurement of information technology by State agencies.

Section **3.** The Division of Purchase and Contracts and the Department of Commerce, Information Technology Services, shall jointly develop and implement no later than December **31, 1998,** policies, procedures, and/or programs to ensure that agency and Division of Purchase and Contracts personnel involved in the development of solicitations, development of specifications, evaluation of proposals, selection of vendors, administration of contracts, and management of information technology projects receive high-quality training in the principles of "Best Value" Procurement, Solution-Based Procurement, Government-Vendor Partnership, contract administration, and project management.

Section **4.** The Division of Purchase and Contract and the Department **of** Commerce, Information Technology Services, shall report to the Technology Committee **of** the House of Representatives and the comparable committee in the Senate on the results of the implementation of G.S. **143-135.9** at its **first** meeting during the **1999** Session of the General Assembly.

Section 5. Section 1 of this act becomes effective December 1, **1998.** The remaining sections of this act are effective when this act becomes law."

Appendix B: Value-Based Procurement by the Ontario Ministry of Community and Social Services

The Ministry of Community and Social Services is one of several ministries, similar to a state department of human services in the United States, of the provincial government of Ontario. It has two core responsibilities — income and employment support and social and community services.

Operating with an annual budget of approximately $8.5 billion (Canadian), the ministry provides social assistance to approximately 1.1 million Ontario residents who are vulnerable and in need, including adults, children, and people with physical and developmental disabilities. Income support is provided through two major programs: Ontario Works and Ontario Disability Support. The ministry also is responsible for several other social services in *Ontario,* including child welfare; child care standards, licensing, and subsidies; services to the disabled; and services for victims of domestic violence and their children.

The Challenge of Welfare Reform

In 1995 Ontario's new provincial government made significant policy changes to its social assistance programs. New emphasis was placed on fraud detection and prevention, and the focus of the welfare system shifted to reconnecting employable adults and youth with the labor market. However, the new government found that its goals could not be achieved with existing business methods, which were largely paper-based and labor-intensive and resulted in errors, overpayments, and fraud. It was in this environment that the ministry embarked on its Business Transformation Project — a comprehensive examination and redesign of social assistance programs aimed at improving services, reducing caseloads, and operating more cost-effectively.

The ministry realized that it needed the expertise of an external consulting firm to help develop and implement new business processes and technology as well as train personnel and deliver change management services associated with the transformation. The ministry selected Andersen Consulting through an open-bidding process to work on the Business Transformation Project because of the firm's extensive experience in business process reengineering, human service programs, and technology development as well as its willingness to invest its own financial and human resources in the project's success.

A Value-Based Relationship

The Business Transformation Project is a joint effort between the Ontario Ministry of Community and Social Services and Andersen Consulting. Under the agreement signed in 1997, the ministry and Andersen Consulting are:

- designing new business processes and new technology to support the Ontario Works and Ontario Disability Support programs;
- planning and implementing the restructuring of the delivery system; and
- training staff and delivering change management services to support the transition to new business processes and technology.

This arrangement is the first major common purpose procurement project of its kind in Ontario's government. This type of procurement is a fundamentally new way for governments to hire services in a competitive-bidding process that establishes a contractual relationship designed to deliver high-quality solutions that are innovative, timely, and capable of meeting evolving needs. Under this agreement, Andersen Consulting invests its time and money in the project, with payment contingent on the firm's ability to realize concrete financial benefits for the ministry from the work completed. Both Andersen Consulting and the ministry recover project costs from the savings generated. The payment to Andersen Consulting is capped at $180 million (Canadian), and there is no guarantee that the firm will be paid the full amount. However, savings to the government are unlimited and are expected to continue long after the contract with Andersen Consulting ends.

Results

To date, the Business Transformation Project has produced savings of more than $34 million (Canadian), primarily through early improvements to existing business practices, which reduced fraud and overpayments. Once fully implemented, the project is expected to produce up to $250 million (Canadian) in savings annually. These savings will be achieved as new technology and business processes are adopted. A third-party review of the project initiated by the ministry recently confirmed that the project has the potential to produce a return on investment of 222 percent and should yield $297.2 million (Canadian) in net economic benefits over the life of the agreement.

Lessons Learned

Although the common purpose procurement agreement between the Ontario Ministry of Community and Social Services and Andersen Consulting is an innovative, performance-based, public-private business arrangement that, in terms of work product and project management methodology, has produced highquality results, it is not without its critics. The Ontario provincial auditor has questioned the price of the contract and the merits of value-based procurement. An independent third-party review of the handling of the procurement and the project confirmed the validity of the ministry's approach and the cost savings, but such criticisms suggest that Governors also must be prepared to respond to these questions in undertaking value-based procurements. In criticizing the price of the contract, the auditor's report overlooked one key component of value-based agreements—the risks that contractors take in entering into such contracts. There is no guarantee that a contractor will recoup its costs or make a profit in a value-based arrangement. The recent independent review of the Business Transformation Project acknowledges that the value-based agreement is breaking new ground in pubkc-private partnerships in Ontario and concluded that the project should ensure a strong and supportable return to Ontario taxpayers.

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Appendix C: Kentucky's "Special Fund Data Management System, Strategic Alliance Services Request"

The following is an excerpt from Kentucky's "Special Fund Data Management System, Strategic Alliance Services Request" issued by the office of the chief information officer June 15, 1999.

"2.2.1 Introduction

The Special Fund is a workers' compensation fund with liability in injury and occupational disease claims arising prior to December 12, 1996. There have been approximately 100,000 claims filed against the Special Fund resulting in a projected liability of $2.4 billion. By law, all Special Fund claims and award records are maintained by the Kentucky Labor Cabinet's Division of Special Fund. As of June 30, 1998, there were 22,924 open Special Fund awards, of which 13,309 were payable for the life of the claimant with the remaining 9,615 payable for 425 or 520 weeks.

The Special Fund database resides on an IBM 370 mainframe computer and IBM AS/400 mini computer and is composed of the following files:

- accounts receivable master file (mainframe computer);
- accounts payable master file (AS/400);
- payment file (mainframe); and
- master file (AS/400).

Kentucky law requires full funding of all Special Fund liabilities by December 31, 2018, and since 1987, the Fund's liabilities have undergone [an] actuarial valuation at least biennially. The Special Fund also undergoes an annual financial and compliance audit as a component of the legally required Commonwealth's Comprehensive Annual Financial Report (CAFR). The September 1, 1997, actuarial valuation report noted several deficiencies in the Special Fund's computer database. Likewise, audit reports for fiscal years 1997 and 1998 stated that the Fund's current claims management database is aging and appears to be approaching its maximum capacity. The actuary and auditors stated that the current database requires the actuary to incur significant additional time and cost to accumulate the information needed to prepare their actuarial valuation report. Moreover, the auditors have noted accounting system deficiencies with regard to pre-1982 awards.

In an effort to further identify deficiencies and improve the Special Funds database, 'a request for proposals (RFP) was issued by the Labor Cabinet on August 1, 1998, for vendor proposals to perform a comprehensive database analysis and provide recommendations for improvements. A proposal was submitted by the firm of Milliman and Robertson, Inc., and a contract to perform the analysis was entered with the firm on December 1, 1998. Milliman and Robertson's report was issued in February of 1999 . . . .

The Milliman and Robertson report presents options for improving the database from an actuarial valuation standpoint. However, it does not address accounting and payment system deficiencies and thus does not offer a comprehensive solution to the Special Fund's data management and accounting problems. Since the Labor Cabinet lacks the internal resources to design and install a new

comprehensive data management and accounting system within a reasonable timeframe, Strategic Alliance Services are being requested.

2.1.2 Problems with Current Data Management System

The Special Fund currently encounters the following operational problems with its data management system.

- The billing and reimbursement systems for pre-1982 awards are outdated and inefficient, making it difficult to meet legally required quarterly billing and reimbursement requirements. The current systems and database have also prevented the development of a program capable of producing periodic aged reimbursement receivable reports as recommended in previous audits of the Special Fund.
- The condition of the database prevents the easy development of computer programs needed to allow staff to perform complex benefit calculations in a speedy and efficient manner. The lack of such programs hampers productivity by making award set up and maintenance too labor intensive and creates excessive delays in the payment of benefits. This problem has also led to inconsistencies [that] could threaten the accuracy of payments.
- There are insufficient data fields to store all relevant information necessary to facilitate efficient and accurate valuation of Special Fund liabilities. For example, the Special Fund has liability in approximately 500 to 600 complex awards [that] require various adjustments in benefits and stop and start payment dates over the lives of the awards. The current database does not adequately describe the Special Fund's obligation under these awards, making actuarial valuation difficult and more expensive. It is also difficult to enter information when awards are reopened without overwriting or deleting existing award data.
- Lifetime awards cannot be efficiently revalued annually to reflect the beneficiaries' current life expectancy and permit more accurate actuarial valuation.
- It is not feasible to produce comprehensive annual benefit statements for Special Fund beneficiaries, making it difficult to keep them informed about important benefit changes over the duration of their awards.
- The current database makes it impractical to value Special Fund liabilities without contracting with an actuary. This creates a problem for the Workers' Compensation Funding Commission, the agency responsible for collecting and managing Special Fund assessments, in setting correct assessment rates in years when an actuary is not engaged.
- The database lacks sufficient fields to store Social Security numbers for beneficiaries in survivors' claims, making it difficult to efficiently and systematically detect death or other changes in the status of beneficiaries in those claims.
- It is difficult to perform computer queries of the current database [that] produce complete and accurate information.

2.2 Vision for New Data Management System

The Division of Special Fund envisions a new data management system [that] will allow for the performance of all payment and billing functions, as well as the accurate and efficient periodic valuation of Special Fund liabilities. The new system will facilitate timely and accurate benefit payments, provide for adequate system security, and include a means of systematically monitoring all awards to ensure continuing entitlement to benefits. Additionally, the new data management system will include a modem, efficient accounting system for pre-1982 award billings and reimbursements. The system will be capable of producing quarterly billings and reimbursements and a regular listing of overdue accounts to permit timely collection. Moreover, the new database will include sufficient data fields, which when populated will facilitate efficient and accurate valuations of Special Fund liabilities.

Additionally, the new data management system will be .compatible with the Commonwealth's Management Administrative Reporting System (MARS), which will become operational on July I, 1999.

Finally, the enhanced system will include payment mechanisms with proper accounting controls for the South East Coal Recovery Fund **(SERF)** [and] Green Coal Company Payment Fund, as well as the Kentucky Coal Workers' Pneumoconiosis Fund, which was created in the 1996 Workers' Compensation Reform Act."