

IT Policy Report

In collaboration with the Texas House Innovation and Technology Caucus





GLASSHOUSE POLICY



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Overview

Strategic Goals and Objectives for Information Technology (IT) in Texas

As stated by our state's leadership team, for our success to continue as our population grows and changes, a strategically modern government will meet the needs of Texas taxpayers. It is imperative that each agency's goals support the statewide vision of ensuring each agency is highly efficient, effective, transparent, and accountable. Therefore, agency leadership must focus on the statewide objectives of ensuring each agency is:

1. Accountable to the tax and fee payers of Texas.

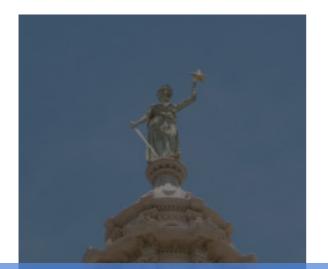
2. Efficient - by producing maximum results with no waste of taxpayer funds and by identifying any function or provision considered to be redundant or not cost effective.

3. Effective - by successfully fulfilling core functions, achieving performance measures, and implementing plans to continuously improve.

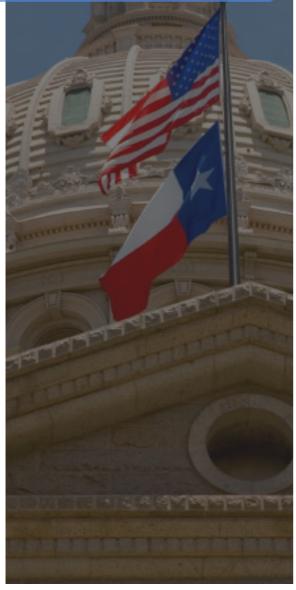
- 4. Providing excellent customer service.
- 5. Transparent such that agency actions can be understood by any Texan.

One important way to achieve these strategic goals above is to aggressively use IT in innovative ways. This will require non "business as usual" thinking and planning in each agency.

Clearing up the IT procurement problems will help achieve these goals.



Overview



The Texas government's ability to contract with private sector vendors plays a crucial role in supporting government functions and providing services to citizens, but the scrutiny of the 21CT and T2 contracts and 84th legislature's passing of Senate Bill 20 drew attention to contracting's many remaining challenges.

On December 4th, 2014, Texas' state contracting Quality Assurance Team opened an investigation into a contract with Austinbased software developer 21CT. The Health and Human Services Commission and the Office of the Inspector General spent \$19.9 million on their contract with 21CT before operational defects caused by state staff members drew the attention of state auditors. Secured via a non-competitive bid process, the 21CT contract led to both the resignation of state employees, and the realization that the Texas contracting process is convoluted, disorganized, and easily manipulated.[1] Change orders for the T2 contract had raised the expected cost of the system development project with Accenture from \$68.9 million to \$98.2 million and delayed the project from total completion in 2017 to one phase completion by 2018.[2]

In response to these and other challenges with state contracts, the 84th legislature passed SB20, a bill designed to establish new regulations for purchasing, contract management training, and best value procurement, as well as vendor performance tracking and reporting. These regulations added a new layer to the complex and often challenging practice of state contracting.

Overview

Value of State Contracts

Texas contracts with businesses in order to purchase commodities and services ranging from cafeteria and prison equipment to technology products and health and human services.[3] For fiscal year 2015 (September 1st, 2014 - August 31st, 2015), the State of Texas spent a total of \$142,437,385,932.13.[4] Of that, Texas expended 7.8% on contract payments, a slight increase from the previous year. This percentage, \$11.1 billion, constitutes the aggregate spending of 108 state agencies and excludes expenditures by institutions of higher education and Co-Op members like school districts, police, fire departments, community colleges, and some city and county governments.[5]

Contract Channel Determinants

Texas Government Code determines contracting channels by both the objectives and the value of the contract.[6] For certain contracts, the state requires agencies to procure products and services via other state agencies. For many information and technology products and services, the contract's objective may require a state agency to purchase the contract through a state program such as the Department of Information Resources' Cooperative Contracts program for an IT commodity procurement. The value of a contract often determines the necessary procedures and oversight for the planning, execution, and monitoring and controlling phases. Higher value or risk contracts may

require a letter of attestation, a more competitive vendor bidding process, or further reporting. The Legislative Budget Board through its Contracts Oversight and Technology Team (COT2), the Quality Assurance Team, the Texas Comptroller through its Texas Procurement and Support Services (TPASS) and Statewide Procurement Division (SPD), the Department of Information Resources, and the State Auditor's Office all have oversight responsibilities. The Comptroller's office administers purchasing and procurement training and certification for purchasing personnel with increased requirements for higher value purchasing authority.[7] Pursuant to Texas Government Code, amended by SB20, all state agency purchasing personnel must receive this training and certification.[8]

Contracting Phases

The contracting process has five main phases: initiation, planning, execution, monitoring and controlling, and closing. In the initiation phase, agencies create a formal project based on a need within the agency. In the planning phase, agencies determine the best approach to purchasing giving the project's scope, cost, and schedule. The longest phase of a contract is its execution, during which agencies and vendors fulfill project objectives, complete deliverables, and make payments. Monitoring and controlling a contract extends through each phase, ensuring compliance with regulations through reporting and communication between stakeholders. Closing occurs as state agencies and vendors complete contract requirements and report final project overviews.[9]

Contracting Stakeholders

Quality Assurance Team (QAT)

The QAT was established by the 73rd legislature in 1993 to provide oversight and quality assurance on large, potentially risky technology projects inside Texas. Article V, Section 133 of the General Appropriations Act was enacted to recognize formation of the QAT, which consists of representatives from the Legislative Budget Office (LBB), the State Auditor's Office (SAO), and the Department of Information Resources (DIR).[10]

Ventures are recurrently measured and evaluated by the QAT to reduce the probability that a plan will fail to supply a worthwhile outcome, which is determined by the project's timetable, financial plan, and assurances made to state legislators. In order to provide effective oversight on the success of projects, the QAT operates under certain standards, reviewing projects and performing risk analyses. The review process is transparent and standardized, and project outcomes are monitored proactively so that a corrective action plan may be offered should the risks posed by the project warrant one.

The QAT is tasked with reporting to stakeholders, such as state leadership and the project team, so that they are aware of the project's status. When necessary, the QAT advises on correction methods and can require additional independent monitoring and status reporting by the project team.[11]

Before a project can begin, state agencies must provide the QAT with the business case, business case workbook, statewide impact analysis, project plan and acquisition plan to be reviewed and approved based on an evaluation of risks. During a project, amendments or change orders must be approved according to reporting measures required to calculate a project's continuing prospective success rate. Upon completion of a project, the QAT will conduct a review of Post-Implementation Review (PIR) of business outcomes to evaluate how effectively objectives were met and how successful QAT methods were in evaluating the project.[12]

Department of Information Resources (DIR)

The Texas Department of Information Resources (DIR) plays a major role in overseeing and managing IT policy in the State of Texas by working to form better public sector understanding of technology issues and more reliable and efficient uses of technology. DIR also serves as the main contact point for IT vendors to the state, its counties and cities, and public education institutions.

DIR is tasked with approving changes to statements of work (SOWs) for contracts issued through DIR.[13] If an amendment to a contract places the value over the \$1,000,000 cut off, the agency may not use the Cooperative Contracts program and instead publishes a Request for Offer (RFO), initiating a new open and competitive purchasing process.

The Texas Legislature dictates that every state agency employ an Information Resource Manager to guarantee each one of the state's agencies remains in observance with DIR guidelines and procedures.[14] Appointing an IRM is part of an official process necessitating written documentation from the agency's chief supervising officer to the Executive Director of DIR.

DIR also requires state agencies and institutions of higher education to complete an Information Resources Deployment Review (IRDR) on all odd years. The IRDR is a standardized assessment intended to disclose technology assets and faults. DIR shares results with the QAT, which uses the data to showcase progress towards state priorities, ensure compliance with regulations, and contribute to the Biennial Performance Report.[15] The Biennial Performance Report provides policy recommendations to the state for contracting improvements.

What are Cooperative Contracts?

The DIR Cooperative Contracts program is an efficient, user-friendly procedure through which public entities can purchase IT products and services directly from vendors.

Cooperative Contract holders do not have to complete the solicitation stage of procurement, as the DIR ensures that all of their vendor's terms and conditions already meet state regulations. Once a contract is obtained, entities can choose from hundreds of vendor options offering a variety of hardware, software, maintenance, training, and staffing products and services. Contract holders also receive discounts on products that have been negotiated by the DIR and approved sellers.[16]

Public entities both within and outside of Texas are eligible for the Cooperative Contracts program. This includes state, county, and local offices, public school districts, and institutes of higher education. [17]

The Legislative Budget Board (LBB) is a permanent joint committee within the Texas Legislature responsible for developing policy proposals and fiscally reviewing proposed legislation in addition to refining the functioning of state and local processes.

Section 322.020 of the Government Code requires state agencies to report contracts to the LBB.[18] Contracts for Major Information Systems that cost at least \$100,000 must be reported to the LBB within 10 days of the state agency awarding the contract, according to Section 2054.008 of the Government Code. "A "major information system" is comprised of: one or more computers that in the aggregate cost more than \$100,000;[19] a service related to computers, including computer software, that costs more than \$100,000; and a telecommunications apparatus or device that serves as a voice, data, or video communications network for transmitting, switching, routing, multiplexing, modulating, amplifying, or receiving signals on the network and

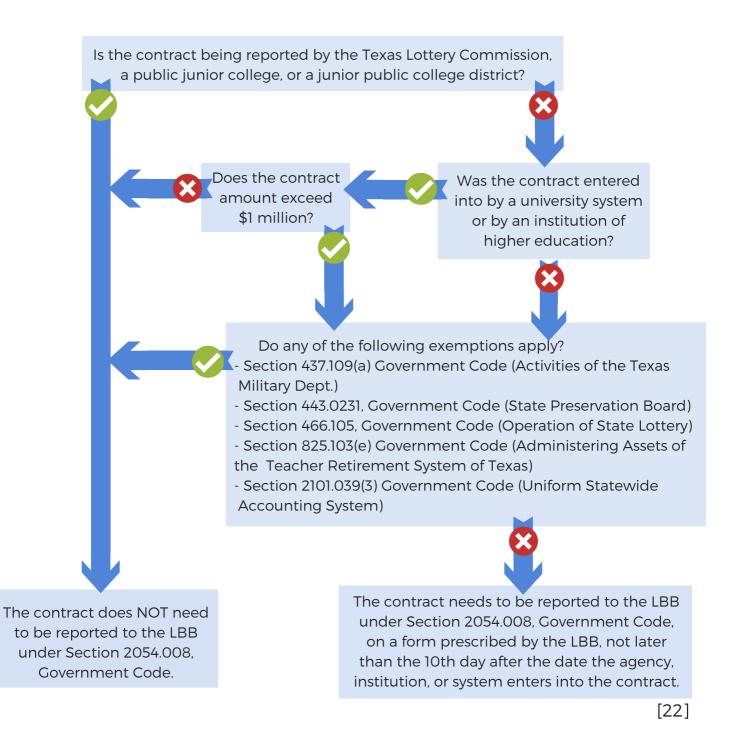
costs more than \$100,000. Exemptions to this contact reporting rule include The Texas Lottery Commission, an institution of higher education's contract if the cost is under \$1,000,000, Texas Military Department, State Preservation Board, Teacher Retirement System of Texas, and Uniform Statewide Accounting.[20]

State agencies must report all contracts valued over \$50,000 by the end of the fiscal year (by October 1st) as stipulated by Article IX, Sec 7.04 of the General Appropriations Act (GAA). Article IX, Sec 7.12 of the GAA requires state agencies to report all noncompetitive contracts valued over \$1,000,000 at least 10 days before the first payment, report contracts valued over \$10,000,000 at least 10 days before 1st payment, and report emergency contracts valued over \$1,000,000 within 48 hours of the first payment. All three of these actions require an attestation letter.[21] Emergency contracts have a blanket exemption from the DIR.

Major Information Systems

Chart data courtesy of www.lbb.state.tx.us

Contracts exceeding \$100,000



Texas Comptroller

Overview

The Texas Comptroller operates as Texas' chief financial officer, dealing with the state treasury and revenue. The office collects all taxes owed to the state and redistributes this money to various publicly funded entities. The Comptroller's office also monitors all state spending and advises the legislature on the state budget.[23]

TPASS and SPD

The Comptroller's office provides guidance and oversight for procurement contracts through the Texas Procurement and Support Services (TPASS) division, which monitors contracts and publishes the Contract Management Guide to improve quality and regulation.[24] Contracts with vendors are monitored by the Comptroller's Statewide Procurement Division (SPD) to ensure that they are compliant with state regulations and the Contract Management Guide. Through TPASS's eprocurement platform, TxSmartBuy, public entities and local governments can easily search for vendors and their products via preapproved contracts.[25]

Contract Management

The Comptroller's office also houses the Contract Management Office (SCM), which assists contracting entities and customers with management, administrative and reporting obligations.[26] Over 220 state agencies and 2,000 cooperative members benefit from these services.[27]

Senate Bill 20

Senate Bill 20 also created new responsibilities for the Comptroller, including a Centralized State Purchasing Study, which would examine the cost of consolidating all state purchasing that falls under one-time contracts outside of the SPD.[28] The management of a vendor performance tracking system[29] and new training programs for key contracting stakeholders[30] inside state government were also delegated to the State Comptroller.





Introduction

Overview

Glasshouse Policy, the UT Center for Advanced Research in Software Engineering (UT ARISE), and the Texas House Innovation and Technology Caucus hosted the Texas Information Technology (IT) Forum on January 12, 2017 at the Capitol Extension Auditorium. Approximately 175 people were in attendance, representing many of the state agency CIO's/IRMs, industry representatives, state legislators, and legislative staffers. While the crowd certainly raised concerns regarding Texas procurement and contracting, clear next steps emerged.

Introduction

Just as it has become impossible to imagine life without technology, it has grown difficult to conceive of a well functioning, efficient state government that is not supported by effective information and technology systems. Previous attempts to create large, complex IT systems indicate that the conventional way of building and implementing these does not work, in part because:

1. The procurer's desire for legal certainty in the contract and its administration does not reflect the real world of IT **rapid change with little certainty.**

2. By the time a lengthy procurement process has been conducted, the requirements have oftentimes changed or evolved.

3. The conventional procurement process is based on flawed assumptions about the problem to be solved.

4. IT systems are not like physical systems, and should therefore be treated differently

As the costs of procurement and subsequent contract negotiations within the public sector continue to rise, it has become critically important to examine ways to introduce reform and innovation into the public contracting process rather than to simply accept the status quo. Since increased costs have not lead to a commensurate increase in performance, delivery, or completion of projects, there is certainly an opportunity to examine new ways to improve the procurement process from the perspectives of both the buyer and seller.

Several themes recurrent throughout the procurement lifecycle – all of which contribute to the current model of unsuccessful, laborious, or contentious procurements - manifest themselves in specific challenges and issues that directly influence the procurement process and stifle innovation and reform.

1. Lack of clear, agreed upon performance criteria: In the absence of performance criteria, buyers and sellers are often left with vague, subjective positions to defend the acceptability of a project. Without a clear understanding of the acceptable criteria, both buyers and sellers struggle with knowing when a project, product, or service is complete.

2. Lack of clarity in how government and industry may communicate: Communication between buyers and sellers is artificially stifled at a time when information and clarification is essential to the success of a procurement and implementation of IT projects. Buyers often assume the conservative view that they must not communicate with sellers except by the formal documents created within the procurement process.

3. Difficulty in defining and articulating

requirements: Lack of clarity and communications leads to an inability to properly define the objectives, requirements and scope necessary to carry out projects.

4. **Inflexible requirements**: Overly stringent technical requirements restrict the flexibility of the seller to propose solutions that may offer a better approach to the buyer's problem, exacerbated by lack of communication. There is often resistance to the adoption of innovative solutions or any challenge of the status quo.

Introduction

In addition, there are three underlying assumptions to our current approaches to IT procurement that contribute to the problematic state of the current public contracting and procurement system:

1. IT projects are often treated like technical challenges – that we know exactly what must be done and that it can be all mapped out in advance – when they are almost always adaptive problems, for which all the problems are not yet evident at the beginning of the process. The assumption that IT should be commodified is also flawed. Large IT implementations are complex with significant unknowns. It is impossible to spec out how all the problems will be solved in advance. Moreover, this work takes place in dynamic environments where assumptions about the technology it will operate on, how users will interface with it, and even what the product will need to do are necessarily dynamic.

2.Effective process can force good decision making (or at least constrain bad ones) -Think of all the questions an organization needs to assess: Will a solution work? Does it have a good user experience? Can that UI evolve? Can the vendor adapt to unknown problems? Can they integrate with our current environment? Can they enable our future environment? These and hundreds of other issues require nuance and knowledge to answer. But any set of procurement rules is about standardization of process — so that the process can be evaluated, not just the outcome. This makes it harder to bring to bear these nuanced decision and knowledge sources, because nuance, by definition, is hard to standardize.

3. Implicit in procurement reform is the belief that a good set of policies and procedures can create a process that, regardless of who runs it, will prevent disaster and possibly even ensure an optimal outcome. The assumption that procurement problems are technical problems, for which the appropriate solution must merely be identified, leads to the belief that with the right "code" the machinery of procurement—regardless of who is manning it—should be able to select the optimal solution.

Examination of these assumptions reveals that they are wrong-headed. Procurement reform is critical to improving government IT services and fostering a better ecosystem of IT procurers and vendors.

IT Procurement Best Practices

IT procurement is the series of activities and procedures necessary to acquire IT products, systems and services. It involves both strategic and administrative responsibilities., and It includes the creation and management of request for offers (RFOs), requests for proposals (RFPs), requests for information (RFI) and managing contracts and supplier relationships.

At the Texas IT Forum, there were 32 attendees in our IT procurement breakout session, including representatives from DIR, TPWD, CSEC, TCEQ, NIC, CSEC, TxDOT, Comptroller and TCPA, and from various private organizations representing the vendor community.

Overarching Recommendations

1. Stop enabling the low bid, amendment-driven, waterfall business model.

2. Avoid "use it or lose it" budgeting rationale for continuing troubled projects.

3. Reduce the complexity and risk of large IT projects by implementing a modular, incremental, adaptive approach to procurement. This means that contracts for large systems should be broken into smaller competitive procurements/awards – with the potential to award to different vendors for each module. With proper attention to system architecture, modules can be procured in series and/or in parallel. 4. Better align budgeting, procurement and development lifecycles using a more agile approach.

5. Ask potential vendors for application/change demos as part of the qualification process. Increase bidder participation and competition.

6. Create a center of excellence in IT procurement best practices by using a more disciplined, mature IT procurement process as a shared model.

7. Create a new class of cooperative contracts called ABITS; Agile-Based IT Services.

8. Offer a class in agile IT procurement to selected state procurement and contracting officers.

9. Interested parties may want to look at what is happening at the Federal level and at the state of California to see what can be done with a more agile IT procurement methodology.

The amount of both interest and confusion in this area warrants holding an additional IT Forum on the topic of "achieving more agile IT procurements". Such an event could be targeted for later this year. With some assistance and sponsorship we will try to make that happen.

The Bigger Picture

We believe that state agency IT organizations would be well served to focus their IT improvement initiatives on lean and agile thinking, and related approaches. What makes an IT enterprise agile is their ability to define, design, plan, and achieve intentional change, rapidly and reliably. What makes an IT enterprise lean is the ability to focus on real value added by IT products and services, while eliminating wasteful activities in related processes. Agency process areas that are in need of lean and agile improvement (from the outside in) include:

- 1. Business process improvement using IT
- 2. IT strategic and portfolio management
- 3. IT project procurement
- 4. IT project management
- 5. IT systems development
- 6. IT software development
- 7. Legacy systems maintenance and evolution

In addition to the project-level best procurement practices described in the preceding section, we also articulated those actions which are needed at the state and agency level to carry out effective IT improvement initiatives.

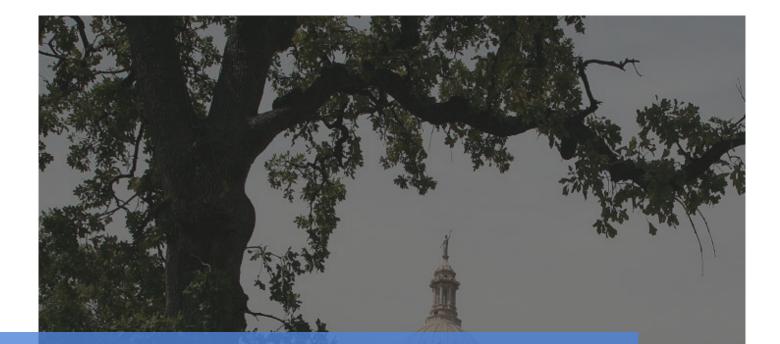
We recommend that the state and all agencies pursue the following strategies:

Create the role
of enhanced leadership for
IT improvement across the state

2. Enable systematicIT improvement acrossall agencies - using a defined goalmodel

3.Emphasize the role of standard measurements in improving IT successes

In addition to procurement best practices, a set of separate recommendations were also made in the related areas of IT Project Management, Software Systems Development and Effective Interventions. These are elaborated in our full report of the event.



Regardless of future policy efforts to continue to improve and evolve Texas' Information and Technology processes and systems, more community engagement, thought leadership and policy discussions will be needed. Newly formed groups, like the Texas House Innovation and Technology Caucus, have a tremendously important role to play, as more summits like the Texas IT Forum will be necessary for Texas' continued economic and technological success.

Moving forward from the Texas IT Forum, Glasshouse Policy and the Texas House Innovation and Technology Caucus consider the following policy proposals to be viable options as Texas' Information and Technology contracting and procurement discourse progress. Some policy suggestions are relatively minor, others are more sizable undertakings, but regardless, but regardless, each policy suggestion is made with more transparent and efficient IT contracting and procurement outcomes in mind.

Compile Data on All Texas IT Efforts

Regardless of reforms to DIR's role in data-tracking or QAT's charter, better tracking of existing contracts is needed to provide Legislators, the public and other stakeholders accurate insight into Texas' existing contracting needs.

Currently, the LBB is charged with collecting and cataloging Texas IT contracting and procurement data. However, rules and regulations regarding which contracts need to be reported to LBB vary depending on size and product being procured. Therefore, there's an inconsistent understanding on the full size and scope of Texas' IT contracts.

In order to fully comprehend and optimize Texas' IT contracting and procurement system, the state must have complete information on all ongoing IT contracts.

Create an IT Intervention Team

As the pace of technological advance quickens, IT procurement, which oftentimes is the ordering of a product to be delivered in the future to ameliorate present-day challenges, becomes increasingly difficult as new technology surpasses the capabilities scoped out in an initial contract.

Creating an IT Intervention Team — a group a IT professionals and procurement specialists — can help ensure that Texas contracts stay on the right track, avoiding the bloating that can occur as change orders drive up the cost of IT contracts as scopes of work are updated to reflect current technological realities or agency needs.

This team could be housed inside an existing stakeholder, such as DIR, QAT, or a potential Texas CIO office. Regardless of home, this team could be critical in guiding Texas contracts to ultimate success, regardless of rocky development periods.

Update the Quality Assurance Team Charter and Responsibilities

The QAT was originally chartered in 1993. Since then, a lot has changed in the information and technology space. The ever-increasing complexity of IT solutions demands a QAT that is not only empowered to track ongoing performance of contracts, but also to intervene when necessary to keep projects on the right track.

By adopting and tracking new performance indicators for all major projects, QAT could play an integral role in transparently presenting contractor and agency performance throughout the lifecycle of a project. Schedule, cost, scope and quality are four potential performance indicators that should be considered, but others could be developed in collaboration with DIR and the broader IT industry in accordance with existing industry standards.

It's imperative that DIR not only develop a new indicator tracking method, but also make this dashboard of indicators publicly available. Projects that fail to meet performance indicators could be placed on a 'watch list' managed by QAT, which would make support services from QAT, DIR, and other entities available to the contract in question to help it get back on track. Finally, a universal set of performance indicators will allow QAT to revamp its annual report and allow all contracts to be tracked in the same way, creating a transparent understanding of the current status of all Texas IT contracts.

Update DIR Mission, Metrics and Responsibilities

Just as QAT must innovate and change to keep pace with the shifting Information and Technology sector, Texas' Department of Information Resources must also evolve to meet emerging technology needs for Texas agencies.

Foremost, Texas needs transparent and vetted metrics of success by which all IR projects can be measured and understood. Assessing project performance based around cost, scope, timeline and final product could provide a universal understanding of IR project successes and failure.

Useful and transparent data metrics should be the bedrock of DIR's future activities. By collaborating with the QAT to develop a user-friendly dashboard that tracks key performance metrics for all major IR projects, DIR can ensure transparency in perpetuity. Consistent and constant metric-tracking will also allow DIR to establish criteria for determining when major IR projects need additional support to achieve the goals of the project.

A more informed, data-driven understanding of large Texas IR projects should also lead to a more nuanced understanding of large IR projects challenges, and where those challenges commonly arise during a project's lifecycle. This should allow DIR to provide specific recommendations on which projects are prime candidates to be

Update DIR Mission, Metrics and Responsibilities (Cont.)

broken up into modules for incremental procurement, lessening the state's risk to projects running over budget.

Finally, data should not only drive IR project management, but also procurement decisions. DIR could collect data and success metrics from completed IT contracts to craft ongoing ratings of vendors, be they large or small, to inform future contracting decisions. By developing standards that ensure Texas is using only the best vendors available for the job, Texas can limit procurement failures in the future.

DIR has and will continue to play a critical role in powering Texas' IT solutions. Updating DIR's mission to include more specific data-gathering responsibilities will position DIR to be a critical source of data collection for both Texans and vendors. By transparently collecting, communicating and indexing data from all active IT projects, DIR could play a critical role in informing both the public and the legislature on Texas' ongoing IT projects. Furthermore, this data collection will prove critical in establishing success metrics to track and grade all future IT contracts.

Appoint a Chief Innovation & Technology Officer

Many of the IT-related challenges Texas currently faces could be remediated with better data, greater transparency, and more communication between agencies, vendors, policy makers. All of these could be achieved via the appointment of a Chief Innovation and Technology Officer for Texas. Appointed by the Governor, this position could be charged with managing interagency data sharing on emerging better practices in IT contracting, coordination with federal and local government stakeholders, and management of the IT project intervention team proposed above.

While there will certainly be ancillary benefits to a state CIO/CTO, such as expanding and improving state services offered via online platforms, the first and primary focus of the position must be untangling the existing IT contracting and procurement space to provide more successful, efficient, and streamlined IT service to Texas agencies. This can be achieved with better data collection, clearer expectations and priorities in contracting, utilizing agile IT methodology, and working in close coordination with existing stakeholders, such as DIR, LBB, and OAT.

Conclusions

Conclusions

In 2016 the National Association of State Chief Information Officers (NASCIO) issued a call to action for state IT procurement reform. NASCIO believes that there are five actions that states can take to improve the IT procurement process:

> Remove unlimited liability clauses in state terms and conditions. Introduce more flexible terms and conditions. Don't require performance bonds from vendors. Leverage enterprise architecture for improved IT procurements. Improve the Negotiations Process.

Implementation of the recommendations set forth in this document will take time, patience, and the efforts of many groups working together before they become a reality.

Procurement plays a pivotal role in how state government acquires and deploys IT systems. It helps determine what kind of systems will be used in the future, determines how rapidly we move toward the goal of information sharing, and has a significant impact on how much our public information systems systems cost.

IT Procurement practices must evolve to meet the challenges of a digital world. Many of the practices that still exist today evolved from efforts to reduce collusion and corruption in the procurement cycle. While this continues to remain one of the goals of acquiring IT, successful procurements demand a different approach.

IT procurement needs to keep pace with the changing world of IT. It is apparent that developing provisions to change procurement practices is just a beginning. The most difficult part is persuading hundreds of agencies and institutions of higher education to adopt new policies and practices.

We are optimistic that, with enhanced state leadership and agency institutional commitments to improve, Texas's current and future IT projects can and will be more successful by implementing our recommendations.

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19 Section 2054.008(a), Government Code.

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LBB_Contracts_Database_Detailed_Reporting_Requirements.pdf.

21 Sec 7.12, GAA Article IX: certification by the executive director of the agency or other similar agency or institution administrator or designee of the agency or institution of higher education that the agency or institution has a process for: (A) verification of vendor performance and deliverables; (B) payment for goods and services only within the scope of the contract or procurement order; and (C) calculation and collection of any liquidated damages associated with vendor performance.

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27 Contract Management Office"

https://comptroller.texas.gov/purchasing/contracts/management.php State Comptroller

28 Sec.403.03057, Senate Bill 20.

- 29 Sec.11, Senate Bill 20.
- 30 Sec.12, Senate Bill 20.