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\(^1\) See Appendix A for a fully defined list of acronyms and abbreviations.
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1 EXECUTIVE OVERVIEW

1.1 Recurring Procurement Themes

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

The Task Force on Procurement Innovation and Reform was created to consider these issues and was particularly interested in identifying the primary challenges that stand in the way of procurement innovation and reform. It was important to Task Force members that the concepts of reform and innovation remained inextricably linked in the discussion of the procurement process. There was acknowledgement that innovation will not thrive without reform; and, conversely, that reform would be meaningless if it did not allow sufficient flexibility for innovation to occur. Procurements are complex, demand a certain amount of rigor and repeatability, and must be well-regulated; however, that does not mean the procurement process must remain archaic or antiquated.

Members of the Task Force identified several themes that were recurrent throughout the procurement lifecycle – all of which contribute to the current model of unsuccessful, laborious, or contentious procurements. The high level themes include:

Misunderstanding of technology and standards

- While there was considerable agreement among the Task Force members that standards can, and should, play an integral role in procurement innovation and reform, there was also an acknowledgement that many buyers do not understand standards. Moreover, nor are they familiar with how they may positively influence the procurement process and the actual project. As long as buyers and sellers do not agree on the importance of standards and how to implement this, this challenge will persist.

Culture

- The culture of procurement is also a challenge that inhibits the ability to reform and innovate. It can be argued that the culture in procurement offices is formal and follows methodologies and procedures lingering from the time of simple material, goods, and equipment procurements; however, the complex and dynamic world of information technology (IT) procurements requires a different, more flexible approach to be successful. Furthermore, there has traditionally been an adversarial relationship between buyer and seller. As long as both parties continue to view one another not as partners, but as adversaries, it will remain difficult to reach consensus on procurement reform.

Lack of communication

- Many of the issues surround a lack of communication in the procurement process directly attributable to the culture of rigor and control that surrounds procurement. While procurement offices must be careful with how much information they share during the procurement process, this directive is often interpreted to mean no dialogue between buyer and seller. The issues surrounding lack of communications affects questions and concerns about procurement
documents, as well as more substantive concerns about specifications, instructions, and the
details enumerated within the materials.

Concerns about risk

- There is considerable risk in the procurement process. Buyers are making tremendous financial
  investments and extending huge organizational efforts in support of procuring goods and
  services—and they are, rightfully, cautious about the amount of risk that may entail. Sellers
  encounter considerable risk if they are unable to deliver the project within budget and deadline.
  As a result, both parties attempt to insulate themselves from risk as much as possible.
  Unfortunately, the risk mitigation and avoidance activities are individually, rather than
  collaboratively, undertaken by both buyer and seller.

1.2 Summary of Key Challenges and Issues

The recurring trends in the procurement process manifest themselves in several specific challenges and
issues that directly influence the procurement process and stifle innovation and reform.

Difficulties applying standards in mature markets

- In mature markets, there is often resistance to the adoption of innovative solutions or to any
  challenge of the status quo.

The challenge of illustrating the value of standards adoption and use

- There is considerable discussion about the rewards and advantages that can be had by using
  standards in projects but there is little, specific, empirical evidence to precisely clarify what cost
  savings and expenditure reductions are associated with using existing standards for IT projects.
  Buyers are often encouraged to use standards to reduce costs but it is difficult to build the case
  for exactly how these benefits will be realized.

Lack of success creating the market for standards

- The term “standards” has many definitions—and, there is concern about which ones are most
  applicable for supporting interoperability. Often, in some areas, there are competing standards
  that are incompatible with each other. Industry needs more clarity on which standards are
  approved for government system use and when those standards should or must be used.

Vague standards definition and inconsistent adoption

- The requirements for standards and interoperability contained in most procurement documents
  are vague, difficult to understand, inconsistent between similar agencies, and may often be
  ignored by both buyer and seller in the final negotiations. Guidance may also lack specificity to
  give the seller a clear indication of intent behind the requirement.

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 acceptable.
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 projects, particularly with technology projects. Buyers often assume the conservative view that they must not communicate with sellers except by the formal documents within the procurement process.

Difficulty in defining and articulating requirements

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

Requirements that are inflexible

- Overly stringent technical requirements restrict the flexibility of the seller to propose solutions that may offer a better approach to the buyer’s problem—and, lack of communication exacerbates this problem.

1.3 Summary of Key Recommendations

While many of the recommendations are specific to the procurement challenges within explicit areas, one of the most important, broad-based recommendations of the Task Force is to continue the work of the group through the support of an ongoing procurement innovation coalition. This coalition should continue to refine the work that has been started by the Task Force and should take a leadership role in ensuring that both the buyer and seller communities are well-represented in future endeavors.

Moreover, this coalition should be engaged in tracking the application of procurement reform initiatives and activities, as well as establishing the agenda for future activities. The coalition should focus on a targeted membership by relying on organizations that have membership bases with vested interest in the procurement process. By aligning with these organizations that represent a broad swath of practitioners and industry, the coalition will be able to leverage their memberships, influence, and existing relationships to assist in the development of the procurement reform agenda.

The coalition will work to prioritize the most imperative innovation and reform activities to be tackled and will then develop a plan to implement these strategies, both nationally and within its respective membership groups. Since each of the organizations comprising the coalition has unique constituencies, the positions and recommendations developed by them will represent the consensus of a varied demographic and will likely be both more palatable and more impactful to a wider audience.

The Task Force leadership has had preliminary discussions with several groups and organizations about continuing the efforts begun under this procurement innovation initiative. These organizations—including: the IJIS Institute, NASCIO, and TechAmerica—among others have agreed to continue to collaborate and look for ways to engage in procurement reform efforts. Each of these organizations bring a unique constituency comprised of stakeholders and members representing communities that have differing, yet complementary, areas of expertise. NASCIO represents state chief information officers (CIOs), bringing the perspectives of senior level officials with responsibility for information technology leadership. Both the IJIS Institute and TechAmerica represent the seller perspectives of the private industry companies that provide goods and services to government buyers.

In addition to the establishment of the ongoing procurement coalition, the following items outline the other key recommendations that the Task Force suggests are necessary to stimulate procurement
innovation and spur reform, including: data sharing standards and interoperability, risk management, and communications and requirements.

1.3.1 Data Sharing Standards and Interoperability

The adoption and proliferation of standards for interoperability poses several challenges for both the buyer and seller communities. As such, the majority of the Task Force recommendations focus on how to encourage both the adoption and proliferation of standards for interoperability and data sharing.

It is increasingly important for buyers to create a market for the use of standards in order to ensure that sellers will participate. Unless buyers can consistently drive the market, there is little incentive for sellers to conform to standards, particularly if there is a belief that an existing product or service can meet the need. Both buyers and sellers should be clear about the expected return on investment (ROI) from the investment in standards-based procurements and sellers and standards development organizations (SDOs) should be prepared to provide examples from similar projects.

For standards to become increasingly and more broadly adopted through procurement vehicles, there must be agreement on and incentives for their usage – whether from funding and grant making authorities, through advocacy groups and SDOs, or from state procurement and IT officials as part of efforts to support enterprise architectures. In order to assist in building this market, there should be efforts to incentivize the procurement of standards-based proposed solutions. SDOs should take an increasingly stronger role in the development of use cases and case studies to show the operational advantages and efficiencies associated with standards adoption and use.

Procurements are often undertaken with a narrow vision or a short-sighted approach. In organizations and agencies that do not have existing enterprise architectures in place, this can make it difficult for both buyer and seller to understand how a proposed procurement, product, or service integrates within the overall business processes of the organization.

1.3.2 Risk Management

There is a growing amount of literature and research showing the benefits of both buyers and sellers taking a balanced risk approach in the procurement process. The current approaches to risk management tend to seek indemnification—often, at the cost of increased contractual complexity. Indemnification provisions and language should be realistic and limited to matters that can be reasonably expected to be within the control of the seller. Rather than seeking to unduly place the burden of risk on one side or the other, both buyer and seller should seek to emphasize mutual accountability and partnership in support of a shared mission. The contractual components related to procurements need to be clear, concise, and well-written.

While risk management will never eliminate the risks inherent in the procurement process, both buyers and sellers are well advised to become familiar with risk management best practices to identify risks and to determine the acceptable level of risk for any specific procurement. Risk management must be an ongoing endeavor and should be comprehensive, including: considerations of cost, time, scope, technology, project team capabilities and competencies, and organizational culture. Risks can be reduced by taking steps to ensure consistency of team members throughout the procurement and project and striving to integrate the procurement team fully in the process.

1.3.3 Communications and Requirements

Incomplete, uncertain, and infrequent communication between buyer and seller contribute to myriad breakdowns in the procurement process. Whether these communications challenges are by design or...
default, or are simply the result of misunderstandings, lack of communication can be costly for buyers, sellers, and, ultimately, taxpayers in public procurements.

It is critical that clear two-way communication can be established in instances where it is necessary to improve the results of a procurement goal—and, that this communication occurs before a solicitation is issued, during the procurement process, and during the contract execution. Buyers should identify precisely when and why communication must be limited in the procurement process. Moreover, jurisdictions should reexamine and evaluate their current procurement policies and processes to identify opportunities to include meaningful communication between buyer and seller and should leverage this for the benefit of the project, rather than adopting policy prohibiting communication. Some jurisdictions limit communication between buyer and seller by statute but, in cases where that is not mandated, buyers should encourage frequent interaction and communication with sellers to ensure that there are no questions about expectations or scope or other issues in the procurement. Sellers need to be inquisitive and ensure they fully understand what buyers are asking for and the parameters for delivery.

The clarity of communication should also extend to the procurement documents since comprehensive documentation can establish the goals of procurements, clearly define the expectations of the buyer, and provide latitude for sellers to be unique and innovative. Both buyer and seller should clearly agree on performance criteria in procurements and should define what constitutes success and completion. While this communication is critical, it is also paramount to note that communication between buyer and seller must be open, clear, and fair to minimize the potential for giving advantages to a particular seller. Enhanced communication may carry some additional risk; however, those risks can be mitigated by ensuring that no one seller gains preferential treatment or access to information.
2 INTRODUCTION

Over the past three decades, the costs of software procurement and subsequent contract negotiations within the public sector have grown rapidly, and due to complexity, often contribute a significant percentage of the total value of procurements. This increase in procurement costs might be justified if there had been a corresponding increase in the performance under contracts resulting from such procurements and the contracting standards applied, but this has not been the case. In fact, there is little evidence that contract outcomes have commensurately improved during the ensuing period. In 1995, the Standish group conducted a study of IT contract performance results and found that 31 percent of contracts were abandoned before completion, while 53 percent were either over budget, late, or did not deliver the required features. In 2009, a similar study by Standish showed the relative figures were 24 percent of the contracts were canceled and 44 percent were challenged.

These are costs that are borne, in the case of individual procurements, by both the public and the private sector; however, in the end, these costs get passed on to the taxpayer as the cost of services increase to cover the costs of what, in a rational world, should be a very small percentage of the procurement costs. It is not only the actual costs of procurement that are at issue here but also the issue of how better procurement approaches might reduce the failure rates of IT procurements. The possible improvements in contract performance under a different approach could conceivably result in hundreds of millions of dollars in savings to the public sector, the private sector, and, ultimately, taxpayers.

It would be unfair, as well as incorrect, to assign all of the blame for performance failures on the procurement process alone. Some blame must be attached to the management of the activities after the procurement is complete; however, there is considerable evidence that the challenges in the procurement process can be indicative of future project challenges or may predestine projects for increased rates of failure.

Increasingly, procurement practices seem to be creating an adversarial relationship between the buyer and the seller. It is important to acknowledge that both buyer and seller have made mistakes and that the attempted corrective actions on both sides have spiraled out of control, leading to the untenable place where procurements now exist. While there is debate about whether this adversarial posture is by design or not, it is impossible to ignore. This is further exacerbated by oppositional contract negotiations after the procurement is awarded, further cementing the two parties as adversaries rather than as partners and collaborators with a common interest in producing an acceptable product at an agreed upon price. The nature of software and related services is sufficiently complex that a partnership between buyer and seller is likely to produce a more dynamic relationship.

The history of procurement between the public and private sector has a long and multifaceted past. Much of the procurement process is driven by the concept of transparency on the part of any public agency engaged in the procurement of goods and services. Past history is rife with examples of what

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happens when such transparency or public scrutiny is subverted. Inflated cost and shoddy performance have often been the twin consequences of such lapses. In an attempt to prevent such lapses, procurement practices have been developed that have, as their primary purpose, the prevention of collusion between the buyer and the seller and the encouragement of public transparency for the entire procurement process.

The objectives underlying the evolution of the procurement process are laudable and in the public interest. The problem is in the way in which these procedures have developed, as well as the way in which they have increased what is a nonproductive cost without significantly improving the cost benefit of the resulting contract. The solutions that may be available to improve the process will require a great deal of research, study, and enlightened discussion between members of both the private and public sector. It would be both a fair and truthful statement that, while there is general consensus that there is a problem and that there probably are solutions that can improve the escalating procurement and contract costs, there is no one single quick fix or solution.

The procurement process is a multifaceted activity that involves a variety of activities and skills. The task of producing a comprehensive roadmap for reform of that process is complex and involves a broad community of both public and private entities. The specific focus of this report is procurement for technology goods and services at the state and local government (SLG) level. Procurements for activities (e.g. road construction) and for equipment (e.g. vehicles) are not included. While several of these principles may also apply to procurement at the Federal level, it is critical to note that procurement at the Federal level is sufficiently different in that it deserves quite a different approach. Although the federal procurement landscape is not in the scope of this Task Force, efforts aimed at the federal level should certainly be explored in the future.

As budgets at the SLG level continue to remain limited, there has been renewed interest on the part of government in looking at the procurement vehicle as a means of reducing costs. The result has been an increased effort on the part of public advocacy organizations such as NASCIO, NASPO, NACo, NGA, and others to take the lead on looking at ways in which procurement practices can be improved to aid public agencies in making public dollars go further and be more effectively allocated. Emphasis has been on collaboration – not only between governmental units but with the private sector companies that are the primary sellers of products and services. Working with private sector advocacy groups, such as TechAmerica, a significant body of work has been produced that addresses not only lingering problems in the procurement process but also the challenges presented by the explosion of new emerging technologies.

In a 2010 study titled States Buying Smarter that was based upon empirical data collected in Minnesota and Virginia, it was reported that innovative procurement methods can produce savings up to 6 percent. The authors specifically cite negotiations between buyer and seller, as well as standardization of the process as key elements.\(^4\)

The availability of new technologies and approaches—such as Software as a Service (Saas), usage-based cost models, cloud computing, and the use of Web Services to deliver products to users—has made huge strides during the past decade but, in many cases, the procurement practices to acquire these technologies have not kept pace.

During the past decade, much effort has been directed towards the development of enterprise architecture both within and among communities at the SLG level. Efforts at the Federal level have resulted in the emergence of a Global Reference Architecture (GRA) in the criminal justice community, which provides a set of guidelines directed toward the development of systems based upon business needs with the capability of sharing information between users in both a collaborative and seamless manner. Based upon Service-Oriented Architecture (SOA), such approaches are focused on emphasizing interoperability between individual systems while maintaining inter-system independence.

Much needs to be done toward developing best practices for procurements that seek products or services that are part of an existing enterprise architecture or that may need to fit within a future enterprise architecture. Enterprise architectures are about interoperability and information sharing, while maintaining the integrity of the local service. Industry needs specific and consistent guidance from the users within the procurement process regarding such requirements so that products and services may be developed to meet well-defined and consistent requirements.

Terminology is always important in producing reports of this nature. The members of the Task Force struggled with the correct nomenclature for identifying the two parties that are involved in every procurement process, particularly in an effort to avoid loaded words, terms with negative connotations, or phrases that would imply some bias one way or the other. Team members considered vendor, solution provider, company, and private entities; and, public entities, political subdivisions, and governmental agencies. Ultimately, it was agreed upon to refer to the two parties to procurement as simply the ‘seller’ and the ‘buyer’. These efforts were originally referred to as procurement reform but the more the team delved into the subject the clearer it became that procurement innovation more accurately reflected the activities and results being sought. In any effort involving IT technology, acronyms abound\(^5\) and they serve a real purpose in reducing the size and length of a document.

### 2.1 Document Purpose

This document is intended to provide guidance to state, local, and Federal officials for use when assessing how to address the procurement problems that are ubiquitous across the nationwide procurement space. While this document may not ultimately provide recommendations that will solve specific procurement challenges, it will provide more high-level suggestions aimed at addressing procurement issues in general.

This document has the ambitious objective of attempting to provide assistance in overcoming some of the common procurement challenges that exist today. It is important to note that these are challenges and concerns with long histories, many of which are rooted deep in the procurement process at the Federal, state, and local levels.

\(^5\) See Appendix A for a fully defined list of acronyms and abbreviations.
While the procurement issues that buyers and sellers face are often anecdotally discussed, this document captures and highlights the challenges. Much of the existing research and body of knowledge about procurement has been developed with a skew toward: governmental concerns and how governments are affected by these concerns; or, from an industry/commercial perspective, with a bias towards the organizations that sell goods and provide services to government. This initiative is primarily unique because of the multi-disciplinary composition of the Task Force. Rather than presenting a bifurcated view of the procurement world, the Task Force has made concerted efforts to present a unified, comprehensive viewpoint that can be an effective tool for both public and private sector stakeholders.

Perhaps the most ambitious goal of this procurement innovation initiative is the attempt to clearly define how technology, in general, and the investment in and adoption of technology standards, in specific, can play a role in ameliorating some of the issues that are inherent in procurement.

2.1.1 Document Structure

This document contains traditional sections, such as the Executive Overview, Introduction, Methodology, Next Steps and Recommendations, and Conclusion. Additionally, Sections 3-5—designed to present the key challenges and issues in a detailed and organized fashion—are structured using four repeated subsections:

Problem Statement
- This section identifies the nature of the issues within each specific theme.

Recommended Actions
- This section presents necessary steps for reconciling the identified issues.

Additional Activities
- This section presents other, optional follow-on actions.

Organizational Positions
- This section presents a list of resources related to what other organizations are saying about procurement innovation.
  - Task Force members read dozens of papers that have been written by organizations from both the private and public sector voicing opinions regarding procurement innovation. Both Task Force volunteers and IJIS Institute staff abstracted 22 significant papers. With limited resources, as well as a looming deadline, the Task Force acknowledges in advance any noteworthy papers that may have been omitted.

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6 See Appendix C for a complete bibliography of procurement innovation resources.
2.2 Intended Audience

This document is intended to inform a variety of audiences, including:

- Academics and others who are studying the process to seek better methods
- Creators of procurement guidance
- Governance groups involved in procurement activities
- Government procurement officials
- Legal professionals
- Legislators and chief executives of SLGs in a position to encourage and enable change
- Private sector contracting officers
- Private sector CTOs and CEOs seeking advice on the direction in which the procurement process is moving
- Program/project managers

2.3 Methodology

2.3.1 Project and Task Team Overview

The Task Force was convened to examine the complete spectrum of procurement matters from the initial identification of a potential IT need, through the Request for Proposals (RFP) and contracting process, to the final selection of a vendor and the execution of a contract for services.

Task Force members were asked to look at both sides of the procurement process and were tasked with attempting to find the most appropriate common ground between the buyers’ and the sellers’ perspectives regarding the manner in which the procurement process is conducted. While both buyer and seller approach and view the process through a different prism, the job of the Task Force was to try to understand the other parties’ perspective where changes are needed. There was agreement that when the procurement process is seen as a shared effort, between partners that it most effectively meets the needs of participants and performs as a true representation of public/private partnerships.

The Task Force concentrated on the technology procurement process as it applies to the SLG sector. This was not because of a belief that the Federal process is unimportant but rather that the Federal process is significantly larger and already guided by countless guidelines and procedural requirements. Although the Task Force did not address the Federal process, members did look to relevant practices in that sector that might inform this report. One of the primary objectives of the Task Force was to define opportunities for the advancement of and improvement to the procurement process, with a keen eye to how standards-based information sharing may assist in the process.

In setting up the Task Force, members sought to achieve a balance between the sellers, who are primarily companies from the private sector, and the buyers, who are mainly public sector political subdivisions. Membership on the Task Force was limited to 12 representatives in order to keep the group activities manageable, while also providing a broad variety of experiences to the group. In the end, the Task Force was comprised of: six members representing public sector advocacy groups that have shown a past interest in procurement practices; and, six members representing companies in the private sector who expressed interest in contributing to the discussion of procurement practices. Finally, two “observers” were added: one from a private sector advocacy group; and, one from a government agency charged with developing better information sharing practices in the procurement process.
The Task Force sought to isolate what members collectively believed were the most important problem areas found in current procurement practices and to define what steps were needed to determine the best approach to establishing changes in the areas identified that are likely to lead to better outcomes for both the buyer and the seller. A second objective was to prioritize the areas identified in an attempt to ascertain those areas where change would produce the greatest return to both communities. Finally, the Task Force sought to reach common causes in outlining the steps need to be taken, whether it was legislative changes, new policies, better governance, or simply a change in current practices. Task Force members felt that, given the time and resources available, it was beyond the scope of the mission to try and actually develop specific best practices or to recommend specific changes that need to take place.

2.3.2 Task Team Responsibilities

The Task Force and its component task teams were instrumental in the identification of procurement challenges and in the recommended suggestions for tackling and ameliorating all of the identified concerns. The Task Force used a 3-phased approach to identify, assess, and plan to ameliorate the challenges of the procurement process.

The members of Task Force looked at several recurring themes and attempted to ensure that all of the recommendations took them into account. These included:

- Improving communications, encouraging open dialogues between buyer and seller in order to build trust, and establishing a collaborative dialogue between all parties.

- Structuring the procurement process such that it may offer increased opportunities for innovation as the solutions are defined, both in the pre- and post-award phases.
  - Included in this concept might be a means of balancing innovation and inherent risk, with proven technologies and products.

- Bringing best practices forward and disseminating them as widely as possible in order to develop a collaborative community of procurement practitioners (both buyers and sellers) that establish and utilize standards and best practices.

- Aligning with enterprise architecture and national standards to ensure that the procurement officials understand how technology is and should be integrating into both the process of procurement, as well as the actual solution.
  - This needs to be an iterative process in order to support a well-established set of policies, standards, and technologies that serve as a reference for procurement.

- Defining topics and methods for the buyer-side team to ensure they are coordinated and have consensus regarding a clear and consistent set of requirements reflecting the needs and expectations of all stakeholders on the buyer’s side.

- Understanding of trends within the procurement process
  - While most procurement has historically tended to be for goods and materials, the current trend is leaning towards the sale and delivery of services. As such, any recommendations for procurement reform must take into account the considerations and best practices that are needed to ensure successful obtaining of services, as well as products and goods.
As a result, the majority of this document’s content is structured around the following three recurring subsections pertaining to:

- Data sharing standards and interoperability (Section 3);
- Risk management (Section 4); and,
- Communications and requirements (Section 5):
3 DATA SHARING STANDARDS AND INTEROPERABILITY

Over the last ten years, the communities associated with information sharing and interoperability have done a commendable job creating and defining national level standards. While this work is not complete, these standards do exist and are available for both the private and public sectors to adopt.\(^7\)

The call to action within these communities is starting to shift from the development of standards to the adoption, proliferation, and use of standards throughout the country. The primary issues relating to standards within procurement reform and innovation start with the poor adoption of these standards and their complementary technologies at the SLG levels. While there is considerable evidence, both empirical and anecdotal, about the value of adopting standards and their role in the procurement process, there still exist several barriers to their widespread acceptance and implementation. The challenge is not so much the use of the standards as it is the removal of barriers in order to create a climate in which standards are readily used. These limiting factors and inhibitors to adoption of standards are covered in the following sections.

3.1 Applying Technical Standards in a Mature Market

There is a shared characteristic among companies serving the market involved and influenced by information sharing and interoperability: Those companies—and, in large part, the market they serve—can be considered a mature market. Buyers are frequently risk-adverse and operate in a bureaucratic structure and environment that can keep them isolated from the knowledge of and impetus towards cutting-edge or new technologies and standards, potentially stifling innovation or emerging best practices. Creating new approaches and introducing new ideas in a mature market is like swimming up the proverbial stream. Introducing the concept of standards into this market will take an extraordinary effort and will require large scale change.

3.1.1 Problem Statement

Within each procurement activity, there exists an opportunity to redefine business process or introduce a new methodology for creating new approaches and workflows. In a mature market, there can be resistance to the adoption of innovative solutions and to any change of the status quo – all of which starts with the procurement process. Uncertainty in a mature market often results in inconsistency of requirements for IT procurements. Information sharing and interoperability imply that there is an external environment that exists to connect to – a community with which to share information. Often times the “connection requirements” are not known or, worse, are not defined. Locals look to regional and state leadership to set the information sharing approach and architecture. If this guidance is not available or is in flux, then the authors of RFPs are often left to guess or to decide in a vacuum.

An impressive amount of research and thoughtful design have gone into developing a number of key information sharing standards and frameworks, among them GRA\(^8\), Global Federated Identity & Privilege

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\(^7\) See Appendix B for a full list of agencies focusing on procurement reform and innovation.

\(^8\) For more information on GRA, visit: https://it.ojp.gov/GRA
Management (GFIPM)⁹, and the National Information Exchange Model (NIEM)¹⁰. These standards have all been collaboratively created and vetted to bring them to a point where they are well-defined and operational; however, the success is based on adoption and implementation of these and other emerging standards will be initiated at SLG levels. At this level, other related networks, enterprise architectures, and mission critical protocols are still being evaluated and developed. Until this work is done and statewide decisions are put in place, the sharing of information and the subsequent requests for products and services through the procurement process will remain inconsistent and erratic.

Facing industry is a series of issues also related to a mature market. Investment in products and associated services has had many years to accumulate. Companies have a lot invested in the platforms their current products rest upon. Companies are reluctant to invest additional money into products when it is not clear what or when the larger issue of standards and related requirements will stabilize. Instead, many companies choose to focus on one project at a time, intentionally controlling the scope of requirements to one client at a time. This approach reduces risk but also minimizes the planning horizon for product development.

Another industry-related concern that reflects the maturity of the market is examples of national standards that have transformed into 50 or more state standards. The case in point is the National Incident-Based Reporting System (NIBRS). The original intention of this system was to standardize incident reporting at a Federal level; however, over a series of years, driven by a willingness to accommodate in the name of competition, states have developed their own unique incident-based reporting (IBR). In order to operate in this environment, sellers have been required to adapt and customize their products to ensure that they can function in every state that has deviated from the NIBRS format. This is a costly undertaking and a lesson industry has learned: Standards are not always standard.

### 3.1.2 Recommended Actions

The primary approach to addressing this challenge will be to reinvent the marketplace in which information sharing and interoperability exist today. In doing so, a new paradigm must be established that demands the national information sharing environment be supported by all states and Federal agencies involved in this community. The adoption and use of standards will be the cornerstone for this approach.

- Developing a mandate for information sharing at the state level is the lynchpin to a successful, widespread adoption of standards because it creates a climate where local entities are required to adopt information sharing. Moreover, if the state mandate is well-defined and clearly articulated, it can make the adoption process smoother for encouraging and enabling sharing. Efforts to address this issue need to be taken by the PM-ISE and advocacy groups, such as those involved in the Task Force and others that can shape the procurement agenda, to provide education and to raise awareness about the critical roles that states play in enabling a national information sharing capability. This will require a concerted outreach effort to state leadership.

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⁹ For more information on GFIPM, visit: [http://www.gfipm.net/about/](http://www.gfipm.net/about/)

¹⁰ For more information on NIEM, visit: [https://www.niem.gov/Pages/default.aspx](https://www.niem.gov/Pages/default.aspx)
Offering support and technical assistance to states that is aimed at developing statewide policies related to the adoption of national standards (e.g. GFIPM, GRA, NIEM, etc.), as well as to develop statewide enterprise architectures, will allow agencies to share information within their state boundaries and, externally, with other states. Adoption of national standards without the supporting enterprise architecture within a state is only solving one piece of the standards puzzle.

Once states are able to define and declare the technologies, standards, and protocols required, then the local and regional organizations will have the ability to define their local system’s requirements in a manner that conforms to the state’s defined infrastructure. It is at this point that industry will recognize, with certainty, what is required to do business within a specific state or local jurisdiction.

### 3.1.3 Additional Activities

While there is universal agreement that organizations should develop enterprise architectures well before they begin acquiring IT infrastructure, it will be years before most organizations have such architectures in place. In the meantime, procurements will continue to emerge for silo and isolated IT systems that contain no provisions that permit information exchange with external entities.

There is an urgent need for representatives from both the private and public sector to develop basic guidelines for IT procurements that will provide the capability for independent exchange of information between providers and consumers through a data exchange layer. These guidelines should be generic and should define what a solution or product should be able to implement at a minimum cost, including the following requirements:

- Support XML-based exchanges that will handle information exchange protocols, such as NIEM, as new consumers or providers appear.
- Describe Web services used to manage communication between external sources.
- Utilize the GRA and GFIPM to manage access and security for multiple consumers and providers.

### 3.1.4 Organizational Positions

For more information, consult the following resources:
### Strategies for Procurement Innovation and Reform

<table>
<thead>
<tr>
<th>ORGANIZATION</th>
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<th>EXCERPT(S)</th>
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<tbody>
<tr>
<td>ACT-IAC</td>
<td>Responsible Information Sharing: Engaging Industry to Improve Standards-Based Acquisition and Interoperability</td>
<td>Neither the Government nor industry alone can develop standards sufficient to support the key interoperability required for their IT systems. Industry would be unaware of some specific government requirements, while Government would not produce sufficient demand to have all of its standards developed without developing most of them to be used by industry. Government-industry collaboration reduces both the cost and implementation of standards needed by both communities, compared to any government-only standards approach. One purpose of government participation in standards governance is to convince industry to build products that use the government’s required general software product standards. If ACT-IAC persuades industry to utilize defined and consistent standards in software and architecture development, then government could acquire commercial off-the-shelf (COTS) products that immediately meet government’s required interoperability standards.</td>
</tr>
<tr>
<td>APPA</td>
<td>Community Corrections Automated Case Management Procurement Guide with Bid Specifications</td>
<td>Information sharing needs and requirements must also be considered early on in project planning. Will the introduction of new technology require changes in how current information exchange processes are conducted? Are there federal or state mandates that require certain pieces of information to be shared across agencies? What of external stakeholders and their system needs?</td>
</tr>
<tr>
<td>NASCIO, in partnership with TechAmerica and NASPO</td>
<td>Leveraging Enterprise Architecture for Improved IT Procurement</td>
<td>In today’s complex government environment, standards provide a basis for addressing business requirements, such as interoperability, information sharing, security, reuse and portability.</td>
</tr>
<tr>
<td>PM-ISE</td>
<td>Identity and Access Management Across Government</td>
<td>An acquisition approach that integrates standards is essential for deploying interoperable technology; however, government has a penchant for requiring certain capabilities and then ignoring those requirements when selecting vendors/contractors. If Government expects industry to provide a specific capability, then there needs to be a market to sell that capability to.</td>
</tr>
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* *A full bibliography is located in Appendix C.*

### 3.2 The Value of Adopting Technical Standards

There is considerable discussion about the financial rewards and advantages that can be had by using standards in projects; however, much of this discussion is anecdotal and there is little specific, empirical evidence to explicitly clarify what cost savings and expenditure reductions are associated with using existing standards for IT projects. Buyers are often encouraged to use standards to reduce costs but it is difficult to build the case for exactly how these benefits will be realized. Buyers that have a clear grasp of the anticipated cost saving associated with standards are more apt to mandate the use of standards in a procurement document. A logical corollary of this is that sellers should also see an associated reduction of their costs to provide services, benefiting all parties involved.

If it is the most cost-effective route for both buyers and sellers to be using standards, then both parties must understand how to effectively utilize that information and induce one another to adopt the same standards, particularly in instances where there is reluctance from one party or the other.
3.2.1 Problem Statement

While it would stand to reason that many buyers can and should expect that projects using standards should cost significantly less to implement than IT projects with custom or “one-off” design and development, sellers cannot always make a concrete case for this, and buyers often remain un-aware of possible savings. The case of the saving is generally built around arguments for a reduction in initial costs to deploy but the savings also are associated with shorter implementation cycles, reduced implementation risk, and the ability to leverage existing artifacts. While the financial benefits should be more clearly illuminated, it should also be made very clear that buyers receive tremendous operational and strategic advantages from the adoption of standards in projects and that the unseen benefits of these may actually outweigh the initial financial impact of the standard adoption. Since the reduced costs associated with greater employee productivity and reduced system integration time may be difficult to estimate—and, ultimately, track—they may not actually be considered and are quite frequently overlooked.

It is also important to clearly articulate an expected ROI from the use of standards. Using standards in projects should certainly reduce the initial costs for implementation but it is incumbent upon both buyer and seller to consider if there are financial benefits that will also be realized in the long-term results (e.g. reduced maintenance, ease of operation, enhanced interoperability, etc.). Much of the financial case for the ROI for using standards in IT projects relies on anecdotal and qualitative evidence. The Geospatial Interoperability Return on Investment Study has shown that “projects that adopt and implement standards early in the project lifecycle build in a margin of business resilience and operational flexibility that can lower long-term costs for operations and maintenance.” Moreover, their conclusions suggest that, even if the standards “are immature, developing and implementing a minimal standard confers some benefits.” As buyers become more aware of the potential benefits, it becomes increasingly more likely that they will mandate standards in the procurement process, thus exposing projects to the benefits of standards even before project inception.

According to a 2010 report from the Federal CIO Council, the adoption of standards has been shown to drive time savings and assists in the avoidance of costs when delivering and implementing new IT projects. The report states that “by reusing standards, Federal agencies have been able to realize savings of 10 percent to 30 percent in development time and cost, from the planning stage to the design stage.”

3.2.2 Recommended Actions

This is an area that is ripe for innovation and reform; and, there are considerable actions that buyers and sellers should undertake to ameliorate this issue. The most direct way that buyers and sellers can begin to make a difference is through education and outreach. The word must be spread about the benefits and cost savings that are available for both buyers and sellers who adopt standards.

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Additionally, the narrative must shift: Rather than anecdotal stories, there must be a concentrated effort to show empirical, quantitative data about the benefits for adopting standards, including:

- ROI and savings information must be made more specific and readily available.
  - While it is easy to say that using standards in an IT project will result in a certain percentage of or amount of savings, it is much more effective to be able to have specific data relevant to different types of projects, lines of business, and implementation specifics.
- Buyers must begin to include standards in procurement documents to realize the benefits early in the process; and, this use of standards should be outcome-driven.
- Industry and seller advocacy groups should develop cost/benefit analysis and clear information about cost savings to share with their constituencies.
- Sellers should begin cataloguing cost savings and ROI from previous projects to include with procurement responses.
- Procurement documents must not be overly prescriptive and should include some leeway for standards and alternative solutions to be developed and deployed.
- SDOs must be more proactive in this endeavor.
  - The burden should not be on the buyer to confirm the possibility of cost savings or on the seller to prove them; SDOs may have to reexamine their traditional roles and activities. SDOs could take a stronger role in the development of uses cases and case studies to clearly show how their standards have resulted in savings. SDOs could also make concerted efforts to ensure that buyers and sellers participate in this process and share this information.

### 3.2.3 Additional Activities

Both buyers and sellers can utilize the case study approach to determine the specific impact that standards use has had on a project, thus contributing to a knowledgebase of ROI and savings-related information.

### 3.2.4 Organizational Positions

For more information, consult the following resources:

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<tr>
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<td>Geospatial Interoperability Office, NASA</td>
<td>Geospatial Interoperability Return on Investment Study</td>
<td>The procurement process can be accelerated by aligning the needs of the buyers with the product plans of the sellers.</td>
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</tbody>
</table>
*By reusing standards, federal agencies have been able to realize savings of 10% to 30% in development time and cost, from planning stage to design stage.*

*Standards encourage innovation.* By describing fundamental requirements; government controls its core intellectual property, keeping it in the public domain. Industry moves to competition on value-added services, not fundamentals.

*Standards enable the creation of a common operating picture.* This ability provides agencies to create common operating pictures of clients or beneficiaries where many agencies have some of the picture, but none has it all.

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### 3.3 Creating the Market for Standards

By definition, information sharing must include the capability for diverse organizations to access and understand the information to be shared. Common standards create the environment that facilitates an understanding of information for all stakeholders. As such, because of the criticality of common standards, the Federal government has included development and implementation of common standards in its information sharing goals.

The Federal government, as a whole, also encourages collaboration with the private sector to further the use and development of standards to achieve interoperability. The goals of the government, as stated in Office of Management and Budget (OMB) Circular A-119, are to:

- Eliminate the cost to the Government of developing its own standards and decrease the cost of goods procured and the burden of complying with agency regulation.
- Provide incentives and opportunities to establish standards that serve national needs.
- Encourage long-term growth for U.S. enterprises and promote efficiency and economic competition through harmonization of standards.
- Further the policy of reliance upon the private sector to supply Government needs for goods and services.\(^\text{13}\)

Buyers need to create the market for standards in order for private industry to participate. Until the market drives the use of standards, sellers will not be required to conform.

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3.3.1 Problem Statement

The agreement on the definition of standards poses a challenge because the term “standards” has many definitions—and, there is concern about which ones are most-applicable for supporting interoperability. In some areas, there are competing standards that are incompatible with each other. Sellers need more clarity on which standards are approved for government system use and when those standards should or must be used. Without promoting and achieving a common understanding of the definition of standards, buyers will have limited success in promoting their common use. In addition, the standards need to be consistently used throughout the acquisition and system lifecycles to be well understood and effective, including using experience to improve affected processes.

There is inconsistent participation and collaboration by buyers, sellers, and SDOs. Sellers are seeking increased buyer participation and direction in standards development and the adoption of commercially successful standards. To encourage adoption of standards, buyers, sellers, and SDOs must collaboratively work to develop a unified standards governance, development, acceptance, and adoption approach. Buyers should avoid specifying unique standards requirements that are not commercially applicable.

Since neither the buyer nor the seller often has a good understanding of standards and how they should best be applied, they are not necessarily viewed as a positive discriminator over proprietary approaches. Unless standards are consistently preferred over proprietary solutions, the incentives for industry are seriously weakened. Consistent adoption of standards should increase competition by participating vendors in an “open market space.”

Better understanding of the buyer’s requirements provides clarity about long-term requirements. Consistent use of interoperability standards reduces the risk of the buyer becoming “locked into” proprietary solutions. Buyers can leverage existing incentives to apply towards larger Federal efforts for using standards.

There are costs associated with adoption of standards to replace proprietary solutions. Investment in proprietary solutions, as key discriminators, will have reduced value. Industry has dependencies and constraints that limit the current incentives to use standards.

3.3.2 Recommended Actions

Government partners should:

♦ Leverage consistent messaging to industry on the core set of standards for information sharing.

♦ Publish standards or links to enterprise architecture via acquisition vehicles.

♦ Publish and share success stories from vendors who have engaged with SDOs.

♦ Promote the value of certification on use of standards to help advance information sharing—for example, the IJIS Institute Springboard Program\(^\text{14}\)—as a shared resource for the evaluation, testing and certification of relevant information sharing and interoperability standards.

\(^{14}\) For more information on Springboard, visit: [http://www.ijis.org/_programs/springboard.html](http://www.ijis.org/_programs/springboard.html)
Strategies for Procurement Innovation and Reform

- Expand business models to: onboard additional private sector partners; create nationally certified standards; and, extend to other SDO interoperability programs.
- Incorporate incentives into acquisition vehicles to further promote industry adoption of standards.
- Engage more frequently with SDOs.
- Develop a community of interest for buyers and sellers to collaborate on standards.
- Develop a standards ROI model.
- Convey the importance as contrasted with non-standard, proprietary approaches so that it can be part of the bid evaluation process.

3.3.3 Additional Activities

- Conduct a survey or focus group with sellers to: better understand their challenges and what they need from buyers; and, assess to what extend standards are incorporated into products in advance.
- Conduct a survey or focus group with buyers to better understand what standards are in use, with a focus on core mission communities (e.g. Justice, Health, Defense, etc.), which may provide more relevancy for individual vendors.
- Work with SDOs to gather more specific statistics for the level of participation of companies in SDOs, the size of company, and the type of company.

3.3.4 Organizational Positions

For more information, consult the following resources:

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One purpose of government participation in standards governance is to convince industry to build products that use the government’s required general software product standards. If ACT-IAC persuades industry to utilize defined and consistent standards in software and architecture development, then government could acquire COTS products that immediately meet government’s required interoperability standards. |
3.4 Vague Standards Definition and Inconsistent Adoption

Requirements for standards and interoperability contained in most procurement documents are vague, difficult to understand, inconsistent between similar agencies, and often ignored by the buyer in the final negotiations.

3.4.1 Problem Statement

In recent years, the move toward COTS products and SaaS has required that sellers have either built the required standards into their systems or must propose pricing that includes a customization effort to add these requirements specifically for a procurement, which would increase the price. Moreover, standards must support emerging business models, such as cloud computing. Until buyers adopt and articulate a set of interoperability standards that are broadly accepted throughout the domain, suppliers are reluctant to make substantial investments in their product to make such standards become part of their COTS offering. This results in two outcomes.

First, the buyer either ends up paying more for the product or services than needed because the seller is developing the interoperability standard into their product offering as a custom addition. Or, second, the best qualified provider is excluded because of the cost of implementing the standard. In this case, buyers often ignore the higher priced offering that includes the interoperability standards specified in the procurement document(s) and the buyer, instead, goes with the lower price that does not include the standard.

Until sellers are convinced buyers are going to require interoperability standards that are consistent throughout the public sector marketplace, they will be reluctant to make investments that will ensure their COTS products meet these standards.

3.4.2 Recommended Actions

The effort to persuade large numbers of public entities to accept a set of reasonable standards will be a monumental task and will require the coordinated efforts of both industry and public sector organizations over a period of time to make it happen. It is hard to shape an advocacy effort without first agreeing on what is being advocated. There are many papers, including those referenced in this document, that have already been written regarding approaches to enterprise architecture, data sharing standards, web services, and federated security – the building blocks of true interoperability. It should be noted that standards are somewhat transitory so a reliance on them as a cure-all is fundamentally flawed. Recommended actions include:

- Establish a governance body that is recognized by both the buyer and seller communities.
Today, the wisdom of creating and maintaining standards is well-established and supported by the majority of stakeholders. The key barrier facing state, local and Federal governments, and their industry partners, regarding interoperability standards, is the lack of organized stewardship of a shared vision—in a word: governance. A governance body of this sort is not intended to supplant SDOs. Rather, it is intended to provide a procurement-centric forum.

- Develop a consensus position and support a governance body.

- This will require staff support to locate, read, and extract the relevant positions and practices found in this collection of material. The first task should be to examine, catalogue, and summarize proposed approaches that have been offered by many organizations to identify how standards should be presented in procurement requests.

- Organize and fund events that bring together procurement innovation advocacy groups to agree on the manner in which interoperability and information sharing standards should be expressed in future procurements.

- Create long-term campaigns, using webinars and grant-funded technical assistance, and advocacy groups to educate and convince buyers to adopt the recommended criteria as part of all appropriate IT procurements.

### 3.4.3 Additional Activities

In today’s complex government environment, standards provide a basis for addressing business requirements, such as interoperability, information sharing, security, reuse, and portability.

The PM-ISE has long been one of the strongest advocates of technical standards and interoperability. A comment made at the March 2013 PM-ISE Workshop for Information Sharing and Safeguarding Standards (WIS3) perfectly summarizes this concept:

“If Government expects industry to provide a specific capability, there needs to be a market to sell that capability.”

Such markets will only appear when a significant portion of the government sector adapts and adheres to clearly understandable definitions of the standards that are required. It seems clear that three things must happen.

- Create systems to express the standards that support interoperability in a manner that can clearly be understood by service providers.

- Require the buyer community to consistently include these standards in their procurements to convince the sellers to include these requirements as part of their products.

- Develop a better way of articulating interoperability standards that are consistent across governmental units at all levels.

  - Technical documents—such as those relate to the GRA—are excellent in offering high-level guidance for how an architecture that promotes interoperability and data exchange should be structured and what artifacts it should contain. Procurements, however, deal at a more specific technical level requiring sellers to respond appropriately. If the requirement calls for offering data exchange capabilities utilizing eXtensible Markup Language (XML) standards that conform to NIEM requirements, then the procurement document must state this in an unambiguous manner. If the product
must have the capability of handling communications using web services including a Web Services Definition Language (WSDL), then the procurement document must clearly articulate this. If requested services must meet either GFIPM or Security Assertion Markup Language (SAML) requirements, then it must state the requirement in terms the seller can understand.

### 3.4.4 Organizational Positions

For more information, consult the following resources:

<table>
<thead>
<tr>
<th>ORGANIZATION</th>
<th>RESOURCE</th>
<th>EXCERPT(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT-IAC</td>
<td>Responsible Information Sharing: Engaging Industry to Improve Standards-Based Acquisition and Interoperability</td>
<td>One purpose of government participation in standards governance is to convince industry to build products that use the government’s required general software product standards. If ACT-IAC persuades industry to utilize defined and consistent standards in software and architecture development, then government could acquire COTS products that immediately meet government’s required interoperability standards.</td>
</tr>
<tr>
<td>APPA</td>
<td>Community Corrections Automated Case Management Procurement Guide with Bid Specifications</td>
<td>Information sharing needs and requirements must also be considered early on in project planning. Will the introduction of new technology require changes in how current information exchange processes are conducted? Are there Federal or state mandates that require certain pieces of information to be shared across agencies? What of external stakeholders and their system needs?</td>
</tr>
<tr>
<td>IJIS Public Safety Technical Standards Committee (IPSTSC) [IJIS Institute]</td>
<td>NIEM Conformance for RFPs</td>
<td>The NIEM program does not define compliance because the term implies enforcement and the existence of an official certification process that verifies compliance or level of compliance; however, in common usage these terms are often misused, and may incorrectly imply the same meaning. These two terms have different meanings and should not be used interchangeably.</td>
</tr>
<tr>
<td>NASCIO and NASPO</td>
<td>Leveraging Enterprise Architecture for Improved IT Procurement</td>
<td>Promoting IT standardization reduces the number of choices and the diversity of solutions deployed, and lowers the cost of operations and maintenance, while accelerating implementation, increasing shared services across agencies, simplifying user training and consolidating purchasing power. The combined effect is to increase the efficiency of IT while decreasing its cost and complexity.</td>
</tr>
<tr>
<td>PM-ISE</td>
<td>Identity and Access Management Across Government</td>
<td>An acquisition approach that integrates standards is essential for deploying interoperable technology.</td>
</tr>
</tbody>
</table>

*A full bibliography is located in Appendix C.*

### 3.5 Buyers Frequently Do Not Have an Enterprise Architecture in Place

Procurements are often undertaken without enterprise architecture in place, making it difficult for sellers to understand how the product or services being sought should fit within the overall business processes of the organization.

#### 3.5.1 Problem Statement

Two tenets that are important from the procurement perspective are:
1) IT systems should be built around business rules and practices rather than being developed as standalone efforts that force business practices to be redeveloped to meet IT requirements.

2) IT systems, while remaining locally independent, should be able to both access and provide access to other users while maintaining the integrity and independence of each system.

One of the most important features of enterprise architecture is the separation of consumer systems from provider systems by a services exchange layer. This is the defining characteristic of an SOA and is the key to minimizing the implementation dependencies between systems. The architectural concepts, among other things, divide the universe into service consumers and service providers of capabilities. Many, if not, most installations are probably both consumers of services and providers of services. Without enterprise architecture in place, it is difficult to describe a system that will be able to both accept and share information from those sources that the business practices of the enterprise require. This often results in expensive changes in the future, as practical considerations require that the system share data with other entities.

Many studies have shown that, when technology projects are broken down in to smaller manageable projects, the success rate goes up. Enterprise architecture that defines the business processes of the entity allows, with assurance, that the next project undertaken will fit with those already in place.

### 3.5.2 Recommended Actions

Enterprise architecture, by implication, embodies standards, interoperability, and reusability and should, as a minimum, meet the following criteria:

- The product or service should adhere to a data exchange standard and all external exchanges should conform to a standard.
- Services that are available to other “Consumers” should be available using web services.
- Develop procurement specifications for federated identity management that address the issue of authorization, or privilege management, within systems and applications in a federated environment.

### 3.5.3 Additional Activities

Because procurement requirements by their nature deal with technical needs and specifications, and since they need to specify what a service or a product should provide, those requirements specified in the applicable reference architecture must be leveraged to develop specifications that are usable in a specific procurement.

- Conduct a survey of best practices to identify the extent to which buyer organizations have enterprise architectures in place, determine how they were developed, and how they operate.
- Leverage aforementioned governance body of sellers and buyers to develop best practices to guide buyers in drafting and presenting the architectural requirements in a procurement document.
- Develop a better framework for understanding the relationship between SOA and enterprise architecture.
- Identify how organizations that have enterprise architectures in place present their requirements in procurement documents.
♦ Develop an advocacy program to encourage buyers to leverage enterprise architecture as a tool to ensure that products are conformant with approved standards and procedures.

3.5.4 Organizational Positions

For more information, consult the following resources:
<table>
<thead>
<tr>
<th>ORGANIZATION</th>
<th>RESOURCE</th>
<th>EXCERPT(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAVA WORLD</td>
<td><em>An introduction to SOA</em></td>
<td>Fundamentally, SOA is an architectural pattern, while Web services are services implemented using a set of standards. Web services are one of the ways you can implement SOA. The benefit of implementing SOA with Web services is that you achieve a platform-neutral approach to accessing services and better interoperability as more and more vendors support more and more Web services specifications.</td>
</tr>
<tr>
<td>NASCIO, in collaboration with Tech America and NASPO</td>
<td><em>Leveraging Enterprise Architecture for Improved IT Procurement</em></td>
<td>Enterprise architecture is critical because it contains the blueprint for the integration of information and services at the design level across agency boundaries. A well-documented enterprise architecture blueprint will allow data to flow from agency to agency, just as water flows through the pipes and electricity flows through the wiring of a well-planned home.</td>
</tr>
<tr>
<td>NGA</td>
<td><em>Overview of State Information Sharing Governance Structures</em></td>
<td>A decision-making body or governance structure is fundamental to the proper implementation of statewide justice information sharing (JIS) program. These governing bodies allow states to manage the task of working across multiple agencies and to create and implement strategic plans for JIS. Such arrangements are vital to success because they facilitate collective decision-making and formalize the decision-making process.</td>
</tr>
</tbody>
</table>

*A full bibliography is located in Appendix C.*
4 RISK MANAGEMENT

While technology and standards are recognized as both important challenges and opportunities within the procurement process, the members of the Task Force were unwavering in their opinion that there are also other significant hindrances stifling the procurement process. In technology projects, risk management is ubiquitous and should be a critical component of the decision-making process. Just as risk management should occur throughout the operational delivery and execution of the project, the identification and assessment of risks should also occur in the planning of and the development of the procurement materials. These risk management activities should be concerned with the procurement terms and conditions for the delivery of the goods or service and the composition of the seller’s team, and should ensure the procurement, as written and specified, will allow that the project will not start in an unbalanced or disadvantaged position. Risk management demands that, while the buyer has a fiduciary responsibility to effectively and efficiently spend the tax payer’s money, sellers must also invoke the principles of risk management to ensure they are able to provide the goods and services required within the budget and timeline specified.

4.1 Onerous and Adversarial Terms and Conditions

At the point when a preferred supplier has been selected, the next task is to develop an agreement to manage and control the project or program. During the negotiations between buyer and seller, there are a number of different strategies and approaches that can be taken to manage risk. Negotiating a complex IT contract can be difficult because of multiple constituent interests and the resulting broad spectrum of perceived risks. Often this is addressed through the introduction of onerous risk management strategies on the part of the buyer through terms and conditions that are adversarial and punitive. An example of this includes assembling multiple layers of punitive terms that involve bid and performance bonds on the project, injecting liquidated damages and unlimited liability. These tactics rarely provide a healthy start to an otherwise viable project.

4.1.1 Problem Statement

Many buyers have contractual terms and conditions imposed upon them either by legislative action or through regulations established through administrative action. Where such requirements exist, the buyer may have little leeway in being able to accept modifications to what the law or administrative procedures specify.

It is clear that there are a plethora of negative impacts resulting from the imposition of excessively punitive or onerous terms and conditions by the buyer. While buyers have a responsibility to reduce their own risk, sellers frequently respond by raising their prices to a level proportionate to their perception of the risk—thus, unnecessarily inflating the costs. Moreover, these strategies are only punitive and rarely accommodate or reward suppliers for beating schedules or cost targets. When

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15 The Task Force members acknowledge that negotiation is strictly governed in some states; and, that, in some instances, if sellers take ANY exception to the terms and conditions, they will be excluded from consideration.
dealing with the most complex IT projects, schedule delays are often unavoidable, leading to situations where sellers are penalized for delays without regard to cause.

Buyers may find that unreasonably restrictive terms and conditions serve to greatly narrow the types of seller firms that will respond to solicitations and announcements. Large, reputable firms are often prevented from bidding on projects that include onerous and adversarial terms due to internal risk management policies that protect against these approaches. Whereas, small seller firms may not fully understand the scope of work and may potentially underbid. While this situation may leave them unable to deliver, they may have nothing to lose because damages could not be collected.

Though the buyer may merely be seeking to protect their investment, these terms and conditions may be indicative of a lack of trust that exists on the part of the buyer. These adversarial relationships may escalate during the course of contract negotiation and execution, preventing both parties from developing a more trusting approach to a contract.

4.1.2 Recommended Actions

There is a growing amount of literature and research showing the benefits of taking a balanced risk approach with contracts. Both buyers and sellers are well advised to become familiar with these best practices and understand the logic and motivations for a more balance approach. In addition to a more balanced approach to assuming the risk, the following actions should be considered.

❖ Procurement documents should contain the contractual terms and conditions that the successful bidder will be expected to accept. The document should also clearly state whether the seller is permitted to require changes to the terms as a condition to submitting a response.

❖ Buyers, where legally permissible, should be prepared to negotiate terms and conditions as part of the procurement process. Competitive negotiations can, in most cases, lead to a more balanced risk model that can reduce costs and improve results.

❖ The use of performance bonds, where legally permissible, should be limited to exceptional cases and other means of risk minimization (e.g. payment holdbacks or performance penalties) employed in their stead.

❖ Indemnification provisions should be realistic and limited to matters that can be reasonably expected to be within the control of the seller, and penalties should reflect the real risk of monetary loss to the buyer. Sellers should not be expected to agree to unlimited liability, including such matters as special, incidental, and consequential damages, as well as liability clauses without monetary limits.

❖ Sellers should be willing to accept liability for implementing what they have specifically agreed to with the buyer, in accordance with commercially accepted standard, but sellers should not be expected to assume the entire risk of the projects success. Buyers should be held to liability standards for failing to provide required personnel as agreed upon, failure to provide timely access to facilities and equipment, and failure to deliver identified decisions, needed information, and deliverable review in a timely manner.

❖ Buyers, wherever legally permissible, should conduct a risk assessment of the project prior to issuance of the RFP to clearly identify the risks, mitigations, roles, and responsibilities of both the buyer and seller in the procurement, as well as the remedies that will be taken should one of the parties fail to deliver on their commitments.
4.1.3 Additional Activities

Contracts need to emphasize mutual accountability if there is any hope for a successful partnership. A partnership cannot work if the responsibility for its success is one-sided—and, neither can procurement.

- The question of balance in IT contracting has been the subject of numerous papers, surveys, and studies; and, there are several active advocacy programs currently in place seeking to reach a more balanced contractual relationship between buyer and seller. There is a need to examine these positions and to support them where appropriate or offer alternatives.

- The private sector (sellers) need to take a more active interest in the issue of contract terms and conditions and bring their experience in how they evaluate contractual risk when responding to procurement requests by means of a survey or focus group. A better understanding of how risk assessment by the sellers in responding to procurements contributes to higher pricing would help to quantify the cost of unreasonably restrictive contract terms.

4.1.4 Organizational Positions

For more information, consult the following resources:

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<thead>
<tr>
<th>ORGANIZATION</th>
<th>RESOURCE</th>
<th>EXCERPT(S)</th>
</tr>
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<tbody>
<tr>
<td>NASCIO</td>
<td>Negotiating IP on the Way to the Win-Win: NASCIO’s Intellectual Property Recommendations</td>
<td>This document provides recommendations from NASCIO’s IT Procurement Reform Committee on the ownership of intellectual property (IP) rights in state IT contracts. In spring 2004, the Committee conducted a survey of NASCIO state and corporate members regarding their approaches to certain IT contract terms, including liability limitations, intellectual property, warranties, liquidated damages, and most favored nation clauses. The report identifies four possible options for IP ownership and discusses the best way to deal with IP rights within this context.</td>
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<tr>
<td></td>
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<td>- State Owns IP/License to the Contractor:</td>
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<td>- Contractor Owns IP/License to the State:</td>
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<tr>
<td></td>
<td></td>
<td>- State Owns IP/No License to the Contractor</td>
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<tr>
<td></td>
<td></td>
<td>- State-Contractor Joint Ownership Arrangements</td>
</tr>
<tr>
<td>NASCIO, in partnership with TechAmerica</td>
<td>Leaving Performance Bonds at the Door</td>
<td>This short but well-crafted paper addresses the issue of performance bonds in IT contracts. Among other things, it describes performance bonds and their limitations. It makes the point that when SLGs require performance bonds in IT bids, the result is to significantly limit competition. Companies of all sizes, but particularly smaller companies, suffer from limited bonding capacity by the surety market, and bond collateralization can create an adverse impact for smaller businesses. The Federal government long ago abandoned the use of performance bonds as a tool for risk protection. States should do the same.</td>
</tr>
</tbody>
</table>
NASPO IT Procurement Work Group

**Comparative Review of State IT Procurement Practices**

The survey was conducted because of the perception that in many cases qualified service providers were declining to bid because of onerous provisions in the legal requirements thus reducing the access on the part of both SLG to some of the best qualified providers. The paper draws upon work from the states of Iowa and Oregon as well as a survey sent to all states. Twenty-five states responded to the survey that asked specifically about:

- Indemnification
- Limitation of liability, including caps of liability and exclusion of damages, e.g. consequential, special, indirect and incidental damages
- Intellectual property rights
- Warranties and disclaimer of implied warranties
- Terminations for convenience or unavailability of funds
- Requirements for performance bonds.

TechAmerica

**Transforming Procurement for the 21st Century – Part I: Reforming IT Contract Terms and Conditions to Improve Procurement Environments and Outcomes**

IT contracts need to apportion the risk of performance, not the risk of the venture. Simply by undertaking a complex IT project, an entity is incurring risk. Will the needed functionality be achieved? Will the organization adopt the new technology? Are there other unforeseen impacts that will occur? Experienced IT contractors using established technologies and methodologies help reduce those risks by bringing their expertise and seasoned skills to the table; however, while they can reduce the risk, they cannot eliminate it. Too often, contract terms required by SLG customers go beyond merely contracting out performance of a project to attempting to outsource the entire risk of the initiative.

*4.2 Implementation Team Membership Consistency*

Keeping the continuity of a team is important, especially for a complex IT project. Often, resource demands for the buyer and seller result in personnel substitutions during the time the contract is negotiated and project implementation begins.

**4.2.1 Problem Statement**

The skills, abilities, and personalities of the buyer’s and seller’s staff and sub-contractor resources are a primary reason why an agreement is signed and approved. Changing key staff after the contract is signed often introduces problems and challenges, requiring new trusted relationships to be developed and information and understandings to be shared.

1) The skills proposed by the seller may have been part of the basis for the award. Switching these resources at the time of implementation puts the project at risk. It also opens the door for criticism, doubt, and distrust on the part of the buyer.

2) Having a clear understanding of the project’s objectives, workflows, user sensitivities, and internal politics are all important knowledge points for the buyer. To substitute a person with that knowledge after a contract is signed often takes the project in unintended directions, with poor results.
4.2.2 Recommended Actions

The success of a project often comes down to ensuring the correct composition of skills, competencies, and capabilities on project teams. For the success of the project, it is critical that the buyer and seller understand and agree upon the manner in which project team members may be substituted. This includes:

- Establishing in the RFP that proposal responses must specify the key personnel involved in the project’s implementation.
- Ensuring that both parties share the expectation that, barring completely unforeseeable circumstances, the buyer and seller teams will function as a consistent and cohesive team, and that trust and commitment are critical to the team’s success.
- Engaging key seller personnel early in the proposal development process to allow these individuals to interact with the buyer’s staff from the beginning of the relationship.
- Training of project managers (PMs) by sellers to support the sales and business development process provides additional operational perspective that allows the PM an opportunity to influence the nature of the sale in ways that help ensure success.
- Developing a model clause that buyers and sellers agree on will allow for reasonable changes in key personnel by substituting suitable, equal skills or will otherwise mitigate the personnel change so the effectiveness, skills, and suitability of the team is not adversely impacted. A balanced approach should protect the interest of the public jurisdiction, while allowing for unavoidable staff changes.

4.2.3 Additional Activities

Accountability for the project’s success is a key element in creating the right teams with the most effective perspectives. Buyers and sellers should address the issue of project accountability by empowering and authorizing an individual to serve as the leader of the project. While other team members remain responsible for their performance and the outcome of the project, a single leader should be identified and should maintain authority over the project. By taking this approach, both buyers and sellers operate from a single direction. Utilizing this approach also makes it clear that both the buyer’s and seller’s personnel are functioning as one organization and that there are not dual and competing interests operating in the program. Finally, this approach offers both the buyer’s and seller’s management teams a single point of accountability in the performance of personnel in the project. In this case, membership consistency can be more effectively managed; and, decisions to remove or substitute team members are, ultimately, made by the team leader.

- Survey industry to identify specific reasons and circumstances that cause changes in key personnel.
- Compile the data and determine what actions are possible to reduce the primary reasons for change.
- Work with industry and public organizations to identify potential strategies and actions that would protect the project when in the event of a change in key personnel.

4.2.4 Organizational Positions

For more information, consult the following resources:
4.3 Lack of a Fully Integrated Procurement Team

In many cases, the procurement team is not fully integrated with all parties needed to develop a well-structured procurement effort. A functional procurement team requires input from a variety of sources that bring different perspective and different skills to the problem being considered.

4.3.1 Problem Statement

IT system projects are at risk when the procurement team does not include representation from all parties affected by the procurement. Some organizations still expect the procurement to be turned over to the procurement office for development of the solicitation, advertisement, selection, and award of the procurement. While this handoff seems to work for less complex procurements, more complex IT exposes the project to risk for a number of reasons:

1) The sourcing strategy and procurement plan should be developed with full participation from all relevant stakeholders. If the responsibility for developing these plans is turned over solely to the procurement office, then the resulting deliverables may not be as closely aligned with the type of project deliverables contemplated in the project feasibility study and planning documents.

2) Procurements that do not involve active participation by user groups, technical specialists, and professional procurement personnel may not result in the best decisions for the project.

3) Procurement officers typically are generalists lacking specific knowledge of the business drivers and technologies involved. Even if they are dedicated IT buyers, it is not realistic to expect them to have detailed knowledge of the technologies, trends, and practices related to the procurement. Their knowledge of the requirements of the procurement processes is to efficiently achieve the objectives of the project.

4) The change in business models for IT solutions emerging in the marketplace are just now making their impact on procurement practices. Today’s SaaS, subscription models, cloud services, and zero cost acquisition models are challenging the traditional procurement models. Even in non-technical procurements, the lack of knowledge about how to structure an effective procurement process can be detrimental to selecting the right solution to meet the public business need.

4.3.2 Recommended Actions

- Establish a governance structure for the technology procurement, which includes business process management, technical support personnel, and affected stakeholders, as well as professional procurement personnel.
The team should work together and should combine their expertise in developing the procurement specification and selecting the best solution.

- Conduct market research by inviting qualified vendors to present their approaches to the problem during the pre-RFP period in order to improve the understanding of the current availability of solutions.
  - Market research can expand the range of potential solutions, change the very nature of the acquisition, establish the performance-based approach, and represent the agency’s first step on the way to an “incentivized” partnership with a contractor.

- Offer as much flexibility as existing laws and administrative practices permit to encourage sellers to introduce alternate solutions to the problem even where detailed statements of work (SOWs) are included in the procurement document.

- Allow competitive negotiations to explore possible compromises that can improve the likelihood of success and/or reduce the cost of the solution.

- Extend the procurement team’s responsibilities as an oversight entity throughout the performance period.
  - They, more than anyone else, will be aware of all the considerations that went in to the selection of the solution and can be invaluable as an oversight board to act as a final arbitrator of disagreements that may occur during performance.

### 4.3.3 Additional Activities

- Develop a more complete understanding of existing governance practices in technology procurements, as well as the best approach to a fully integrated procurement team.
  - A good starting point is to compile and examine surveys that have been conducted by national organizations and papers discussing procurement governance that have been published by various groups.

- Conduct additional surveys to fill in knowledge gaps that may be needed to develop a complete picture of the governance practices that produce the best results.
  - Examine case studies from organizations that have adopted new innovative governance approaches to procurement. Correlating the most successful outcomes being reported will help verify practices that work.

- Develop a consensus position regarding governance practices developed by both private and public advocacy groups to endorse a set of best practices that should be followed by buyer organizations and accepted by seller organizations.

### 4.3.4 Organizational Positions

For more information, consult the following resources:
### Strategies for Procurement Innovation and Reform

<table>
<thead>
<tr>
<th>Organization</th>
<th>Resource</th>
<th>Excerpt(s)</th>
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</table>
| GSA                                 | Seven Steps to Performance Based Services Acquisition: An Interagency-Industry Partnership in Performance | 1) It is important that the members of the team understand what their roles and responsibilities are. Regardless of its representation, the team is responsible for ensuring that the acquisition:  
- Satisfies legal and regulatory requirements.  
- Have performance and investment objectives consistent with the agency’s strategic goals.  
- Successfully meets the agency’s needs and intended results.  
- Remains on schedule and within budget.  
Successful teams typically have a number of features: shared leadership roles, individual as well as mutual accountability, collective work-products, performance measures related to the collective work product, and other ingredients.  
2) Many contracting staff learned their job when the culture was to maintain an arm’s length distance (or more) from contractors... and, limit the amount of contact the contractor has with program people. That approach will not work in today’s environment and especially not in performance-based acquisition. |
| NASCIO, in collaboration with Tech America and NASPO | Leveraging Enterprise Architecture for Improved IT Procurement | A state must determine early in the RFP planning process its business needs and ultimate outcome desired, such as what state agency users need to do their jobs better. In contrast to a sealed bidding type-process in which a state may decide on detailed specifications of the desired IT solution, the RFP process may entail the development of less-detailed specifications that focus more on the desired outcome than on the technical requirements that will achieve the outcome. |

*A full bibliography is located in Appendix C.*

### 4.4 Lack of Transparency on Budgets

A lack of transparency on the part of buyers regarding their available budgets and inflated expectancies on the buyer side regarding the procurement costs often result in sellers responding with proposals that exceed the available budget by significant amounts. Buyers frequently send out proposals that have not yet been funded to obtain a budget baseline, which is a practice that benefits neither party.

#### 4.4.1 Problem Statement

The cost of preparing even moderate procurement is significant. If the specifications contained within the procurement document cannot be met within the available budget, then the effort becomes a cost burden on both the buyer and the seller. These costs eventually get passed back to buyers as part of the cost of responding to procurements. This also can lead to sellers trying to recoup their costs by accepting a lower price in the hope that change orders can be used make up the difference between an underpriced commitment and the results. This also raises the perennial question of whether buyers should try to make a solution fit the budget or make the budget fit the best solution.
4.4.2 Recommended Actions

Lack of understanding and agreement on budgets is a sure-fire way to guarantee disagreement between buyer and seller. In order to eliminate the possibility for budgetary issues to derail projects, it is critical to identify and address them as early in the project as possible. The clearer the budget, and the more directly it maps to the desired procurement results, the more likely that there will be a positive outcome. In order to facilitate this, both buyer and seller must:

- Include budget ranges in the procurement document. Such an approach, where permitted by law, will result in an early warning to the buyer if their expectations exceed their capability to pay for them.

- Use a pre-procurement meeting, with qualified sellers, to yield valuable information regarding the true costs of a project.

- Implement a Request for Information (RFI) targeted to qualified sellers asking for estimates for the desired solution. This may be an effective way to match expectations with budgets.

- Encourage sellers to suggest alternate solutions. This may provide the buyer with a range of approaches – some of which may fit the available budget.

4.4.3 Additional Activities

- Conduct appropriate research at the SLG level to determine what the legal limitations are for publishing budget amounts for procurements.

- Develop and publish a position on the subject of budget transparency that is endorsed by major private and public advocacy groups.

- Develop and pursue an advocacy program to educate and persuade buyers that it is in their best interest to provide greater transparency regarding budgeted amounts for procurements involving technology procurements.

4.4.4 Organizational Positions

For more information, consult the following resources:

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<thead>
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<tbody>
<tr>
<td>APPA</td>
<td>Community Corrections&lt;br&gt;Automated Case Management&lt;br&gt;Procurement Guide with Bid Specifications</td>
<td>One of the great myths of government procurement is that competitive bidding laws are designed to ensure that the government gets the best price. Clearly this is not the case. If it were, taxpayers would not be paying $600 for toilet seats and the private sector, which depends on the bottom line, would have adopted similar procurement procedures. In fact, competitive bidding laws were passed to eliminate corruption, ensure fairness and transparency, and allow equal access among private vendors to government contract opportunities. Saving money was a secondary goal at best.</td>
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</table>

*A full bibliography is located in Appendix C.*
5 COMMUNICATIONS AND REQUIREMENTS

In addition to concerns about technology, standards adoptions, and risk management, issues of communication plague the procurement process. While it would stand to reason that communication is an important part of the process and would lead to better results for both buyer and seller, there are still countless breakdowns in communication throughout the procurement lifecycle. Some of the challenges are institutional, while others are lingering historical and cultural barriers to effective, bi-directional communication between buyer and seller. In order to effectively address communications issues in the procurement process, it is necessary to consider how to address those communications challenges that exist prior to the release or issuance of a solicitation, those issues that arise during the procurement, and those issues that may arise during the actual execution of the contract.

5.1 Lack of Clear, Agreed-Upon Performance Criteria

Defining performance criteria at a detailed level is difficult, costly, and typically not warranted by buyers. Additionally, buyers are not in a position to determine these performance criteria as part of the requirements definition because they have no appropriate frame of reference. Introducing new technologies and contemporary functionality leaves little room for comparison to older legacy systems. When one considers the changes that have taken place to enterprise level systems regarding a typical user experience, system functionality, complex workflows, information availability, and system processing speeds, the changes are so dramatic they are often not recognizable to the buyer. Consequently, sellers are left in an unenviable position of having to represent the vagaries of their product’s performance in these areas, while also rationalizing the dramatic changes the buyer (and user) experience. Add to this the difficulties of having the buyer develop testing criteria to evaluate performance, and the likely outcome is too often disappointing.

5.1.1 Problem Statement

Acceptance is typically a significant milestone in a project; it often represents the transition of a project from an implementation phase into a maintenance phase. During this transition, the majority of the project is paid for, personnel and processes shift, and references are developed.

In the absence of performance criteria, buyers and sellers are often left with vague, subjective positions to defend the acceptability of a project. Additionally, without a clear understanding of performance criteria, buyers often struggle with knowing when a project, product or service is acceptable.

5.1.2 Recommended Actions

To ensure that both buyer and seller have a firm understanding of and agreement upon the performance criteria, both parties must:

- Create processes that allow for increased consultation and two-way communication during the solicitation phase. Encouraging this same level of communication in the post-award phase, allows buyer and seller to:
  - Better understand buyer’s aspirations and vision for what will be achieved and what will be possible if the project is successfully completed.
  - Understand buyers’ high-level performance criteria, not just from a technical perspective, but from mission, business, and operations perspectives.
Understand buyer pain points—with internal stakeholders (e.g. workforce and management), as well as external stakeholders (e.g. budget overseers, legislators, and media)—in the event that the client cannot clearly and succinctly articulate project progress against key performance and mission criteria.

- With the information above, have the seller develop responses to these requirements along with developing reasonable and well-defined performance criteria for acceptance.
- Align seller’s project plan, SOW, and product acceptance criteria with the buyer’s stated expectations of the project. This mapping of the seller’s approach to client success criteria should be as explicit and detailed as possible in order to identify gaps and disconnects between how buyer and seller perceive success.
- Memorialize, in a mutually agreed upon document, the client’s performance criteria and how vendor work plans and milestones map to and support those criteria. Identify a work plan and timeframe to address any gaps or disconnects.

Other actions include:

- Establishing conditions of acceptance so that the client and vendor are well aware of the performance expectations at project launch.
- Structuring contracts to include service level agreements (SLAs) that the vendor must meet.
- Structuring contracts to include incentive awards for excellent performance and on-time delivery.
- Creating a regular and frequent cadence to review and assess project performance against performance criteria.
- Explicitly empowering a joint client/vendor team to focus on project progress metrics, and to map those metrics to client performance and acceptance criteria, as well as empowering that group to recommend changes or adjustments as necessary to performance and acceptance criteria in work plans.

5.1.3 Additional Activities
In addition to the recommended activities, there are other actions that both buyer and seller should consider, including:

- Examining two successful and two failed mission-critical technology projects for side-by-side evaluation. In each case, it would also be useful to select one large (strategic) and one small (tactical) project.
- Conducting a study to examine the nature of performance criteria that were used in a group of selected projects and identify how the project aligned against those criteria.
- Closely examining what practices or characteristics that the successful projects exhibited versus the characteristics exhibited in communications on the failed projects.

5.1.4 Organizational Positions
For more information, consult the following resources:
5.2 Lack of Clarity in How Government and Industry May Communicate

Traditional procurement policy and practice, as well as loosely constructed solicitation documents set up the potential for misunderstanding by industry of buyers’ needs and procurement goals at the same time that buyers apply an arbitrary and often unnecessary cessation of communication. For the purposes of this discussion, the issue of communication includes both verbal and written information and instructions.

5.2.1 Problem Statement

Lack of clarity in communication protocols can lead to protests or to sellers missing the mark in responses or deadlines. Often times, communication between buyer and seller is artificially stifled at a time when information and clarification is essential to the success of a procurement and implementation projects—and, this is especially true of technology projects. In the absence of explicit permission, the buyer often assumes the conservative view that s/he should not communicate with sellers except by the formal documents within the process (e.g. solicitations, invited questions and responses as described in the RFP, etc.). While lack of effective communication impacts the supplier and the end user client, it also has an adverse impact on the public as projects become more at risk and may not provide the right solution.
In procurements, poor communication between the buyer, seller, project teams, and procurement office can lead sub-optimal solutions at three distinct phases:

1) Before the solicitation is issued
   - Lack of effective communication leads to ineffective market research; and, as a result, the project does not take advantage of the best suited technologies and solutions, which can only lead to a sub-optimal outcome.

2) During the procurement
   - When suppliers are unclear about requirements or have meaningful recommendations to improve the procurement’s ability to deliver the project solution that will bring the best value, the resulting award may be more costly than it needs to be and often misses the target, leading to a sometimes delayed or failed procurement.

3) During the contract execution
   - Ineffective and poor communication increases project risk and can lead to undesired adjustments in scope, schedule, or budget. Contracts executed without effective communication can result in issues not being addressed at the appropriate level or in a reasonable amount of time and can grow into project threatening disputes.

This lack of clarity in communication protocols, and the resulting effects, manifests itself in the following forms:

- Buyers construct solicitations that do not make clear the requirements of the project, including dates, times, orders, and expectations for the vendor proposals and responses.
- Buyers impose a customary shutdown in communication with sellers once the procurement has begun, which impedes clarifications.
- Frustration mounts between the parties when the buyer is not clear enough in its solicitation and the seller wants to ask questions but is stopped by buyers citing policies, often incorrectly, that shut off communications.
- Industry objects when their proposal or solution is disqualified over a matter for which they sought, but could not receive, clarification.
- Buyers object when sellers’ proposals are not perceived to be responsive to their needs.
- Sellers counteract areas of uncertainty with higher costs to counteract the potential project risk and become suspicious of buyer’s lack of communication.
- Buyers view sellers’ questions and clarifications as attempts to either gather favorable information or subvert the procurement process and establish grounds for protest if not successful.
  - End outcomes of the last two items generally result in a less-than-favorable relationship with the successful bidder.

Public procurement processes have not really evolved from their roots, when procurements were simple and straightforward, and communication was not as important. In the case of simple bids for a pre-defined commodity to be delivered at a required date and time, there was not much need to communicate. In fact, communication was restricted to ensure no one received an unfair advantage. In
Strategies for Procurement Innovation and Reform

this example, sellers and the procurement authority would have clearly understood the requirement and the award. This level of simplicity does not exist in an IT project-related procurement.

IT procurements are different and the need for communication is critically important. IT is changing at an ever-increasing pace: Not only are the technologies changing but the business models and the potential solutions continue to evolve as a result of this exponential pace of change. It is difficult for a public agency to assess its business needs against a bewildering array of emerging technologies and the wide range of possible business solutions. This makes communication imperative but, ironically, can also stifle communication from the procurement office side. This is because the procurement office often simply does not know the answers to the questions or they are afraid that the answer will result in information that will be used against them in a protest.

There are circumstances where communication is appropriately restricted—for example, a procurement official cannot disclose one competitor’s offer to another during the solicitation process. This is appropriate to protect the integrity and competitiveness of the process; however, communication limitations are likely not as restrictive as interpreted to be by many jurisdictions.

5.2.2 Recommended Actions

Many agree that communication is essential to the successful conduct of any procurement project, and that communication takes on several forms. There needs to be a mutual understanding, established in the solicitation and the events leading up to the solicitation, that fosters communication and understanding by both parties. Improvements can be found through some of the following:

♦ Clear and comprehensive solicitation documents that establish the goals of the project, as well as the needs and expectations of the procuring agency, let industry and vendors innovate to meet those goals, needs, and expectations.

♦ Clear and concise functional and technical requirements, in specific, are not to be confused with detailed requirements, in general.

Additionally, buyers need to:

♦ Reexamine and understand current policy and procedure relating to communications during procurement, and leverage this to the advantage of both sides (buyer and seller) for the benefit of the project; rather than adopting a broad-brush approach of “no communication.”

♦ Ensure that any communications are with all sellers, not just select ones, and ensure that whatever is said to one is said to all.

Finally, sellers need to:

♦ Ensure that proposals focus more on being technically responsive to the requirements, needs, and goals of the agency and project sought and less on marketing.

♦ Be sensitive to the constraints under which the agency is operating.

5.2.3 Additional Activities

♦ Convene a work group that includes industry representatives and national association stakeholders to identify the specific circumstances that require communication to be limited.

♦ Determine what the key principles are that require limits on communication.
Task the work group to: (1) identify principles that could be followed to limit communication and principles that could be followed to encourage communication; and, (2) present their findings in a whitepaper or monograph.

Identify the circumstances when it is appropriate to limit communication during the procurement life cycle and the rationale for doing so.

Explain the value of communication at appropriate times during the procurement lifecycle, the consequences of not having effective open communication in terms of how the public interest is damaged, and the benefits gained by transparency and effective open communication process.

Provide examples of effective communication that public jurisdictions have used in their IT procurement processes. Identify ineffective communication processes (e.g. some pre-bid conferences) and provide ideas about how to improve effectiveness.

Provide a call to action for public jurisdictions to evaluate their procurement life cycle for opportunities to include meaningful communication between suppliers and the procurement office. This communication effectiveness review should be part of any procurement process review and redesign.

Select two successful and two failed procurement projects—preferably technology projects, due to the relative objectivity of requirements—for a side-by-side examination.

Examine the nature of communication, and overall clarity of the solicitation, across all four projects to identify commonalities.

Examine the nature and content of all vendor questions and answers across projects to identify commonalities.

Conduct an analysis of the strengths and weaknesses of communications and the role it played, if any, in the project outcome.

### 5.2.4 Organizational Positions

For more information, consult the following resources:
<table>
<thead>
<tr>
<th>Organization</th>
<th>Resource</th>
<th>Excerpt(s)</th>
</tr>
</thead>
</table>
| ACT-IAC      | BetterGovernmentIT: Summary Report | Primarily aimed at Federal procurement communications the paper resulted from web based collaboration between purchasers of IT and sellers where they were invited to define some of the important myths that have grown up around IT procurement communications. While the participants were, primarily a Federal group many of the myths presented is very applicable to SLG procurement. The dialogue hosted by ACT-IAC had four questions:  
  - Identify “myths” that government acquisition professionals may hold that inhibit their ability to communicate with industry during the IT acquisition process.  
  - Please identify “myths” that industry may hold that inhibit their ability to communicate with the government during the IT acquisition process.  
  - What are major impediments to improving government and industry’s ability to communicate with each other? If you identify rules or regulations, please be as specific as possible.  
  - Provide examples of Federal IT acquisitions that included good communication practices - by either government or industry - that resulted in better outcomes and better communications. |
<p>| APPA         | Community Corrections Automated Case Management Procurement Guide with Bid Specifications | An RFI can be useful if the agency is unsure what the general costs of a given solution should be and needs additional information from service providers to properly budget for its upcoming project. As a result, the RFI can be used preemptively to prepare the RFP. |
| GSA          | Seven Steps to Performance Based Services Acquisition: An Interagency-Industry Partnership in Performance | Many contracting staff learned their job when the culture was to maintain an arm’s length distance (or more) from contractors [...] and, limit the amount of contact the contractor has with program people. That approach will not work in today’s environment and especially not in performance-based acquisition. |</p>
<table>
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<tr>
<th>ORGANIZATION</th>
<th>RESOURCE</th>
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</tr>
</thead>
</table>
| The Procurement Lawyer | The Importance of Competitive Negotiations to State Information Technology Procurement | This paper discusses in detail how negotiated contracts can benefit the buyers by both improving costs and producing better results by defining the requirements for the service or product through the negotiating process. It discusses the reasons why states vary widely in permitting negotiations with suppliers either in a serial or concurrent fashion during the procurement process. One of the more interesting observations is the structure that supports or inhibits the ability to negotiate contracts.  
A State’s Constitution and its Statutory Laws → Formal Regulations → Published Policies and Established Procedures → Documented Practice → Accepted but Undocumented Preference → Habit → Inertia (or “Fear of the Unknown”)  
Rigid procurement process, where communication is foreclosed, makes it hard if not impossible to find an informed middle ground. Conceptually, these problems can be addressed, and in many cases may be resolved, through increased use of competitive negotiations in the state procurement process. (As a matter of definition, “competitive negotiations” refer to an acquisition where a public purchaser evaluates and negotiates with multiple responsive sellers, as distinct from a situation where a public purchaser elects to negotiate only with one source.) A competitive negotiations process can be used to better define a state’s requirements, to better understand vendor capabilities and encourage innovative solutions, to refine offers, to reconcile price to funds available, and to overcome contractual obstacles. |
| NASPO         | Effective Communication between State Procurement and Industry            | Nearly 30 states responded to the survey. The paper concluded that this issue “warrants more education and increased awareness.” It said “most states have not issued sufficient guidance on how to best conduct one-on-one meetings with vendors.” NASPO recognized the importance of building “consensus with key stakeholders regarding the fundamental policy and legal issues that require procurement integrity and fairness to avoid creating an unfair advantage,” while at the same time, “gaining vendor experience as state’s develop strategic sourcing strategies.” |
| TechAmerica   | California’s Use of Negotiations Authority for State Technology Contracts  | First enacted in 2003, Section 6611 of California’s Public Contract Code allows use of flexible procurement techniques to better define the State’s needs, identify different types of solutions, accommodate constraints of bidders and realize “best value” for the State. Based on research by Robert S. Metzger, it is TechAmerica’s contention that the State of California has not made optimum use of negotiations. In those few cases where negotiations have been employed Mr. Metzger’s research suggest that outcomes were significantly improved. |
A public sector entity that assumes a less adversarial stance in contracting and negotiations, a stance which focuses on sharing risk and reward, and adopts a focus on partnership will benefit from a more open selection process, improved communication of ideas, and a shared interest in the success of the project. This can be achieved without sacrificing the important qualities of fairness, transparency and equity in the procurement process.

*A full bibliography is located in Appendix C.*

### 5.3 Defining and Articulating Requirements

In current procurement efforts, there is considerable difficulty and confusion regarding client and vendor communications on the subject of requirements.

Many times, projects suffer scope creep because the original specifications did not correctly meet the perceived need or the perceived need was not correct to meet the current issue. Contracts should focus on satisfying the need of the client (solving the problem) and not on a specific technology or approach.

#### 5.3.1 Problem Statement

Getting scope at the right level of detail is difficult. Scope may be too narrow (*i.e.* driven by technical client) or too broad (*i.e.* driven by business client). Examples of this might include using prescriptive language as to how a result is to be achieved, as opposed to simply describing the required result. This can lead to a disconnect between budget and scope. Scope at the prescriptive level can reduce creativity and inhibit cost effectiveness in vendor responses. Moreover, constrained communications during the formative phase of the solicitation (*i.e.* RFP) prevents the open dialogue that would allow the solicitation to encourage more suppliers to offer proposals. Frequently, buyers will conduct market research or borrow a similar RFP from another buyer to begin their solicitation development. Sellers could be highly useful in helping the buyer craft an articulate and sensible SOW; however, buyers often try to do this without the benefit of seller input, except in very limited amounts.

#### 5.3.2 Recommended Actions

- Be open and communicative about upcoming requirements—and, do so with the highest level of transparency so that all interested parties have an equal and fair opportunity to be part of the discussion leading to the solicitation.
- Get the proper balance between a SOW that is too tight (*i.e.* bad for the seller) or too loose (*i.e.* bad for the buyer).
- Recognize and admit that the experts in providing the solution are in industry, not in government.
  - Additionally, buyers are best served finding expert partners in industry to design, develop, and deliver the most effective solution.
- Engage in an open dialogue with industry prior to finalizing and releasing any RFP for a complex technology solution.
Strategies for Procurement Innovation and Reform

- Pre-solicitation conferences, industry days, an open blog, or a wiki site to allow 24/7 communications as the buyer conducts appropriate pre-solicitation activities would likely result in a better RFP that industry is more likely to respond well to.

5.3.3 Additional Activities

- Review existing papers to consolidate the prevailing position on the manner in which the requirements are presented.
- Locate and examine any existing surveys on the results of different approaches to presenting procurement details to ascertain best outcomes.
- Participate in advocacy programs that promote greater flexibility in stating requirements within the RFP process.
- Work to develop surveys that compare detailed prescriptive approaches with more open approaches that ask the seller to propose solutions to the problem.

5.3.4 Organizational Positions

For more information, consult the following resources:

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<thead>
<tr>
<th>Organization</th>
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</thead>
<tbody>
<tr>
<td>APPA</td>
<td>Community Corrections Automated Case Management Procurement Guide with Bid Specifications</td>
<td>Long (several hundred page) RFPs have not proven to help Agencies to achieve projects that are more successful. Agencies have developed very detailed RFPs only to find that first, they inhibit vendors from competing for their business due to the cost of responding to the request and second, they are extremely difficult to administer as part of the subsequent contract. Instead one should focus on the business problem that you wish to solve.</td>
</tr>
<tr>
<td>Kennedy School of Government, Harvard University</td>
<td>The Public Contracting Process in Support of Entrepreneurial Solutions</td>
<td>If we could really write a prescriptive contract or grant, we would – in essence – have already solved the problem we are seeking help in solving.</td>
</tr>
<tr>
<td>NASCIO, in collaboration with Tech America and NASPO</td>
<td>Leveraging Enterprise Architecture for Improved IT Procurement</td>
<td>A state must determine early in the RFP planning process its business needs and ultimate outcome desired, such as what state agency users need to do their jobs better. In contrast to a sealed bidding type-process in which a state may decide on detailed specifications of the desired IT solution, the RFP process may entail the development of less-detailed specifications that focus more on the desired outcome than on the technical requirements that will achieve the outcome.</td>
</tr>
</tbody>
</table>

*A full bibliography is located in Appendix C.

5.4 Too Much Detail in the Procurement Document

Procurement specifications that attempt to define the technical requirements in too much detail often lead to ambiguity and restrict vendors from offering the best most cost effective solution for the problem the buyer is trying to solve.
5.4.1 Problem Statement

Solicitations that are too specific cause vendors to give up their unique solutions for stated requirements; whereas, solicitations that are too detailed complicate the process of responding to the procurement and may inflate prices because of overly stringent requirements for both outcomes and processes. Overly stringent technical requirements restrict the flexibility of the seller to propose solutions that may offer a better approach to the buyer’s problem. As a result, it may dissuade potential applicants or de-incentivize other creative solutions that could potentially offer the same functionality at lesser costs or even provide greater functionality at similar/less costs. Buyers are frequently unaware of the range of solutions that may be available to them and, thus, often specify technical approaches that are both expensive and do not offer the best performance for their requirements.

5.4.2 Recommended Actions

♦ Adopt an approach to procurement requests that states the problem the buyer wishes to solve and ask the sellers to propose solutions.

♦ Ask qualified sellers, prior to the formal RFP process, to visit and discuss their solutions as a type of market research that allows the buyer to become familiar with what is available in the market place.

♦ Encourage sellers to offer alternative approaches even though they deviate from the RFP requirements.

♦ Create requirement statements that describe the desired outcome or result the buyer is looking for, which leaves it to the sellers to offer innovative and cost competitive solutions.

♦ Represent in the RFP any budgetary limitations considered as part of the procurement process.

5.4.3 Additional Activities

♦ Catalogue the various recommended alternatives to the traditional SOW approach.
  – This effort would likely involve comparisons of the different approaches to ascertain whether more innovative approaches lead to better results in terms of both price and completion outcomes. This will involve surveys, as well as case studies, of specific instances. The intended result would be to verify which alternative approaches work so that endorsed best practices can be developed based upon proven results.

♦ Survey the seller community to solicit their perspective on alternative approaches to the procurement process and solicit their specific recommendations as to how they believe the cost, efficiency, and results of procurement can be improved.

5.4.4 Organizational Positions

For more information, consult the following resources:
5.5 A Balanced Commitment to Success

Often in the execution of a project, there are effectiveness cycles that take place on the part of the buyer and the seller. For myriad reasons, organizations succeed and struggle as the project progresses. In cases where there is balanced support of the project from both the buyer and seller, these cycles are less obvious and progress is often more consistent. A balanced approach requires a collaborative effort, high levels of communication, and a strong commitment to a common objective.

Too often in public/private projects, the relationship is adversarial and the focus of either party is inconsistent and disjointed. As effectiveness cycles occur, participants are unprepared to respond or respond negatively. Projects that have this orientation often fail and result in a wide variety of negative consequences.

5.5.1 Problem Statement

Today, there is a pervasive lack of trust on the part of the buying community regarding the commitment and capabilities of industry. Too many projects are failing; and, the resulting costs are burdening budgets already stretched. Taking an industry perspective on IT projects, one often finds an industry bias towards the buyers as being overly risk adverse and inconsistent and erratic regarding their requirements.
5.5.2 Recommended Actions

♦ Set expectations during contract negotiations to ensure all efforts will be made to keep the buyer’s and seller’s teams as intact and as consistent as possible.
  – In the event that penalties or sanctions are called for due to changes in each respective team, it is important that these are balanced and equally apply to both buyers and sellers.

♦ Evaluate best practices used by other organizations in preparing and executing complex IT projects.
  – While a large number of projects fail, many succeed by meeting cost and scheduling objectives. By studying these examples, buyers and sellers can gain a lot of knowledge about ensuring that projects are a success.

♦ Create an internal implementation team within the buyer’s organization.
  – This is a good way to keep the buyer focused and committed. The implementation team should be kept relatively small, 2-3 people, and should be led by the buyer’s PM. In the structure of the team, it should be clear who the successor to the PM is in the event they are called away or are unable to see the project through.

♦ Effort should be made at every opportunity to ensure that the buyer’s team and the implementation team on the seller’s side meets on a regular basis.
  – Often, it is helpful to have a clear understanding of each day’s activities based upon the project plan. With each team meeting in person or on the phone, for a project “stand-up” meeting, efforts can be coordinated, expectations can be set, and issues can be addressed in a real-time basis.

5.5.3 Additional Activities

♦ Work with other procurement advocacy groups to develop and support positions that minimize adversarial relationships in technology projects.

5.5.4 Organizational Positions

For more information, consult the following resources:

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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>GSA</td>
<td>Seven Steps to Performance Based Services Acquisition: An Interagency-Industry Partnership in Performance</td>
<td>With regard to the overall approach to contract performance management, the integrated solutions team should plan to rely less on management by contract and more on management by relationship. At its most fundamental level, a contract is much like a marriage. It takes work by both parties throughout the life of the relationship to make it successful.</td>
</tr>
<tr>
<td>TechAmerica</td>
<td>Perspectives and trends from state government IT leaders</td>
<td>The relationship between the vendor community and the states should be one that is both business-oriented and collegial in nature so that industry and best practices can be shared.</td>
</tr>
</tbody>
</table>
5.6 Complex and Cumbersome Procurement Process

The procurement process can be long and tedious for both buyer and seller; however, when procurement requirements are too cumbersome and complex, it can often result in firms deciding not to respond.

5.6.1 Problem Statement

Every potential seller has to evaluate the cost of responding to a procurement request against the probability of selection, the estimate of the size of the resulting contract, and the risk assessment of being able to complete the contract at a profit. Complex procurement processes can discourage firms from responding. All firms have to make decisions as to which RFPs they will respond to; and, one factor that is always a consideration is the level of complexity involved in the process. Unnecessarily complex procedures can lead to the exclusion of firms from the process, which hurts full and open competition.

The cost of preparing responses to procurements is significant: Complexity drives the costs upward and these costs are passed on to the buyer, including the costs incurred for unsuccessful responses.

Smaller firms may not have the resources to respond to a procurement that requires difficult responses and imposes requirements for performance bonds, local content, certifications, and complicated demonstrations.

5.6.2 Recommended Actions

The primary actions taken by both buyer and seller should focus on the simplification of the procurement process without compromising desired organizational outcomes. In order to achieve this end both buyer and seller should:

- Identify crucial components of the solicitation, such as type of product needed, core capabilities, and level of investment required, while reducing the amount of potentially extraneous information needed can help with this simplification.
  - This would allow for more firms to be able to participate, increasing competition and enhancing the probability of receiving innovative solutions.

- Provide an adequate period for sellers to respond to the RFP.
  - Procurement requests with unreasonably short response times deter otherwise qualified bidders from responding because either there is inadequate time to prepare a credible response or it suggests that there is already a favored supplier.
5.6.3 Additional Activities

Both buyer and seller should also consider:

- Investigating examples of organizations that utilize short form submissions for firms with under a certain amount of employees; and, evaluating the threshold for a specific number of employees that constitutes eligibility.
- Surveying the seller community to quantify the average cost of preparing a proposal, the success rate for each proposal submitted, and how complexity affects the preparation cost.
- Comparing complexity issues involved in prescriptive procurements as opposed to those involving problem statement approaches; and, seeking feedback from the seller community regarding relative costs.

5.6.4 Organizational Positions

For more information, consult the following resources:

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</tr>
</thead>
<tbody>
<tr>
<td>NASPO</td>
<td>Meeting the Challenges of World-Class Procurement</td>
<td>NASPO has commented on the issue of complexity in procurement laws and RFP processes that complexity should be driven out of procurement processes. The paper highlights a recent survey by the State of Washington that polled 2,500 of its vendor community to assess their views on current procurement practices within the state. The survey revealed that complex procurement procedures adversely affect company participation.</td>
</tr>
<tr>
<td>NASPO</td>
<td>Pursuit of Painless Procurement – Secrets from the Other Side</td>
<td>This paper in slide format provides a brief but delightful presentation of some of the problems encountered by suppliers in dealing with the procurement process. It offers insights, from the suppliers viewpoint of some of the more vexing problems encountered throughout the process including dealing with the RFP as well as some of the more onerous requirements encountered in the legal contracting process.</td>
</tr>
<tr>
<td>NGA Center for Best Practices</td>
<td>Overview of State Information Sharing Governance Structures</td>
<td>There are specific ways that states can improve the procurement process for particular IT services. For example, states can simplify and modernize contract terms and conditions (T&amp;Cs). Oregon worked with the vendor community to mitigate problems with T&amp;Cs that discouraged vendors and stifled competition. In 2009, the state reached out to industry and asked how it could change its approach to IT acquisition to improve competition and services and lower costs. After engaging industry, to understand the companies’ perspective, Oregon produced six new template forms for IT contracts that move the state closer to commercial norms.</td>
</tr>
</tbody>
</table>

*A full bibliography is located in Appendix C.*
6 STRATEGY AND IMPLEMENTATION

Much of content in the previous sections of the document was focused on providing concrete, operational recommendation to the buyer and seller communities about how to effectively improve procurement process, with explicit considerations given to issues of risk management, communications and requirements, and data sharing standards and interoperability. The following section addresses the advancement of a future, more deliberate, strategic approach that weighs how to balance the operational concerns and concepts with the limitations of time, funding, and issues of imprimatur that affect the procurement process. Rather than small operational and tactical recommendations, this higher order strategic view intends to plot a direction for attaining the broader visions and goals of procurement innovation and reform.

6.1 Strategic Considerations

The ultimate strategic objective of the Task Force is to bring about actual changes to the procurement process that will benefit both industry and the clients that they serve. The first step was to produce a paper setting forth specific changes in the procurement process intended to improve the results for both the buyer and the seller. The Task Force has expressed a desire to ensure that this body of work does not become just another academic exercise on this topic.

It is a fundamental premise of this work that no matter how persuasive the recommendations of this Task Force may be about specific changes that should be made in procurement practices, change will not happen unless a significant number of organizations and associations are engaged in advocating for such changes. By doing this, we can find common ground and our collective voices may be heard.

This is the primary reason for our efforts to assemble and make available the collection of papers cited in this document that set forth the opinions, recommendations, and actions of other organizations with interests in the SLG level procurement process. Many of ideas and recommendations contained in this document are similar to what these other advocacy groups have already developed and endorsed. It is sensible that, for the future, the Task Force reconcile its positions with those espoused by others to see where common ground may exist. Further, it is important to identify which ideas are unique and may encompass areas that have not been previously considered by other advocacy groups.

Realistically, procurement reform will only come about if buyers are convinced that a recommended practice is beneficial to them. This suggests that the real path to change lay with the public sector entities, who are the buyers in this sphere of interest. If buyers remain unconvinced that the innovative ideas proposed are in both our best interests, then change is unlikely to happen.

Because the Task Force includes organizations that represent significant segments of the public sector, it is essential to make the case that these suggested innovations are ideas that can benefit their constituencies. To the extent this goal can be achieved, the Task Force will have set in motion a movement that can help promote the ideas to those who influence procurement in the public sector. It is important to remember change may require legislative action, changes in administrative rules, or modification of deeply embedded organizational culture. All of these take time and require continued advocacy from a variety of organizations and sources.

Coming up with innovative ideas is only the first step—albeit, certainly an important one. Following through with the necessary studies, research, and discussion to define what needs to be done and what changes need to take place to truly change the process must be part of any long-range strategy. Further,
the Task Force will need to continue to form alliances with other organizations, particularly in the public sector, if there is any hope of seeing these changes occur.

As an approach to developing a long-range stratagem for the IJIS Institute to help bring about changes in the procurement process, the following section(s) outline a 5-phase, long-term plan that may be employed.

6.1.1 Phase 1 – Identification Process

During this phase (underway at the time of this document being finalized), the objectives are limited but crucial to any ongoing effort to understand where changes in the procurement process can have a real effect on the efficacy of the process. In pursuing these goals, members should remain aware that other advocacy groups have already completed a significant body of thoughtful work that embody positions they believe would accomplish the objectives we seek. Such positions should be considered and, where appropriate, the Task Force should consider lending its support. The core objectives of this phase are as follows.

- Identify those portions of the overall procurement process that a consensus agreement believes are contributing to poor procurement outcomes.
  - The areas of deficiency should be clearly describe in detail what existing processes are contributing to the perceived deficiency.

- Identify what further activities are required to completely understand why the areas of deficiency are contributing to undesirable outcomes.
  - This may include reviewing documents prepared by other students of the procurement process, carrying out surveys of both buyers and sellers, and conducting interviews of involved personnel to make sure there is a complete understanding of the dynamics involved in the process.

- Develop a detailed approach to deriving alternate approaches to the process under examination.
  - Questions for consideration include: What would be required to change the process (e.g. legislative changes, regulatory changes, structural changes, or simple changes to current procedures)? What steps need to be taken to achieve the change? What role should the Task Force or its successor organization play in this process?

6.1.2 Phase 2 – Establishment of an Ongoing Procurement Coalition

During this phase, an ongoing procurement innovation coalition will be established to continue to refine the work that has been started by the Task Force. This coalition will use a membership comprised of both government and industry, focusing on a more targeted membership to ensure that organizations with a vested interest in the procurement process or with membership bases related to procurement continues to be included.

Achieving change requires both a continuing and a well-coordinated set of activities, and this coalition should provide the leadership to develop these activities and track their progress and success. While each of the organizations participating in this Task Force currently is concerned with and is addressing the procurement process, a coalition of organizations is more likely to advance procurement reform than the individual efforts of such organizations. There are several reasons for this:
Each organization has a different constituency, which brings a different perspective to the procurement process that is essential in distilling consensus positions on procurement that can be the basis of continuing advocacy.

Positions developed and advocated by a group of organizations representing a wide range of constituencies from both the private sector (i.e. sellers) and the public sector (i.e. buyers) are more likely to find acceptance of recommended positions than those sponsored by a single organization.

A consortium of organizations can be more effective in bringing together a larger support group that can actively promote positions developed and agreed upon by the group.

A group of parties with common interests has a much greater reach in conducting surveys to help identify what procedures produce the best results in actual practice.

A coalition of organizations that each have large constituencies within both the seller and buyer group are more likely to be able to attract financial support from both the private and public sector to fund essential activities.

Several organizations, including some serving on the current Task Force, have been active in pursuing procurement improvement. It is recommended that this core group form an alliance to continue its work on developing best practices for procurement. The alliance would be informal but, as a minimum, would develop a charter and a governance structure to guide its work. A chair would be selected by the participating members and an agenda developed for the creation of further best practices.

### 6.1.3 Phase 3 – Position Development

This phase would follow the completion of Phase 2 and would require significant funding either through monetary contributions from industry and government or in-kind contributions of personnel to carry out the research and writing envisioned during this phase. Every effort should be made to include other advocacy organizations in the process (similar to the approach taken in Phase 1) and to ensure the broadest position endorsement as possible.

- Complete the necessary research of the subject so there is a clear understanding of the process and why it is being handled the way it is.
- Understand the position of all relevant stakeholders, private and public, regarding the process, including any positions espoused for changing the process.
- Locate instances where changes in the process have occurred and document the result, both good and bad.
  - As part of this process, a website should be established where papers that have been published can be catalogued and made available to the public.
- Develop and publish the proposed changes to the process, describing, in detail, what the replacement process should look like.
- Articulate what steps need to be taken to achieve the change, including changes in existing legislation or regulations, adjustments to organizations, or role changes within organizations.
- Identify those stakeholders that would need to embrace the change for it to become an accepted process and any practical barriers that would have to be overcome.
Seek endorsement of each position by as broad a coalition of both private and public advocacy groups as possible to provide a strong network in support of the positions being espoused.

- The development of a formal partnership(s) with other advocacy groups may be a preferred route at this stage and should be examined.

### 6.1.4 Phase 4 – Advocacy

Phase 4 would be an ongoing process covering a number of years and would hopefully benefit from the existence of the procurement coalition since changes in an area as fragmented as the SLG market can take a long time to materialize. The procurement coalition would take the lead in this phase to facilitate collaboration with other advocacy groups, both public and private, to ensure a concentrated effort. Perhaps one of the best frameworks for defining the different levels the process involves is contained in a paper called *The Importance of Competitive Negotiations to State Information Technology Procurement* by Lauren Kramer and Robert Metzger that identifies the different echelons that may have to be influenced to produce change in the process:

“A State’s Constitution and its Statutory Laws → Formal Regulations → Published Policies and Established Procedures → Documented Practice → Accepted but Undocumented Preference → Habit → Inertia (or “Fear of the Unknown”)”

- Review and update procurement positions on a continual basis to reflect the changing nature of the technology and the manner in which it is delivered to the customer.
  - Given the rate of change that governs IT technology, one of the problems in the past is that procurement has tended to lag behind advances in technology. While this is likely to continue to be the case in the future, a real objective is to decrease the lag time.

- Develop and disseminate position papers reflecting current views on problem areas in the procurement process with as broad an endorsement from both public and private groups.
  - By developing a coalition of advocacy groups, it will help ensure that the distribution of well-researched position papers will reach a broad segment of stakeholders in both the private and public sector. Hopefully, continued exposure to leading-edge thinking will help influence the thinking of these stakeholders and will help influence beneficial changes to the process.

- Provide assistance, as requested, by local agencies in developing positions as to why procedures or legislation should be changed.
  - A template for this kind of effort has been provided by TechAmerica in the assistance they have provided Oregon, Illinois, California, and others seeking expert advice when dealing with procurement. Many jurisdictions seeking to improve the procurement process simply do not have the expertise to offer concrete solutions for the problems they are seeking to solve.

- Seek opportunities to speak before groups that may be in a position to further the goals of procurement innovation to acquaint them with the work and positions that have been developed in an attempt to obtain their support for the endeavor.

- Develop materials—slide presentations, handouts, toolkits, educational webinars, and briefings—to identify challenges and remedies that will advance IT procurement reform.
− These efforts should also attempt to leverage social media in an effort to most effectively disseminate information.

6.1.5 Phase 5 – Archival Support

This Phase 5 activity (begun by the current Task Force) should be continued and be viewed as support for the activities enumerated above. There is an enormous amount of published material about procurement reform, as well as subjects closely related thereto.

There is currently no central repository for such material, which makes it difficult to carry out research related to the development of best practices for different areas in the procurement process. The Task Force has collected and abstracted almost 30 papers on procurement practices; an additional 20 papers are awaiting the abstracting process; and, there are dozens more papers that are waiting to be discovered and collected. Further, new papers are being published weekly that need to be located, classified, abstracted, and made available through a central location.

This effort should be funded to allow the continued collection and classification of material relevant to the advancement of procurement innovation. While some best practices for procurement innovation are well established, others need considerable study and research before acceptable best practices can be established. The availability of a central repository of literature on the subject can be a valuable asset in the development of best practices.

6.2 Implementation

The procurement landscape is rapidly changing—and, it follows that procurement practices must continue to evolve if these practices and processes are going to keep pace. In this effort, we have touched upon newly evolving technologies such as SaaS, cloud computing, mobile devices, and SOA as areas where more study and evaluation must be focused to develop procurement practices that support these new models.

We have identified the fact that the ability of the buyer to communicate with the seller frequently results in unacceptable outcomes. While there is broad agreement that this issue is a major factor in procurement breakdowns, there is no universally agreed upon set of best practices to eliminate or even mitigate this problem. A number of proponents of change advocate that the traditional RFP should be abandoned and should be replaced by a Performance-Based Acquisition (PBA) approach.

Furthermore, many advocates of procurement reform believe a more widespread use of enterprise architecture, which promotes interoperability and information sharing, is a practice that must be encouraged if we are to have successful procurements that reflect the business practices of the enterprise. This is closely followed by agreement that a lack of specification of data sharing standards results in costly changes or additions to the system in the future. Presently, there is no generally accepted method of defining standards requirements in the procurement process.

6.3 Gaps and Challenges

The biggest challenge in bringing about improvements in the procurement process are: achieving agreement between sellers and buyers as to a set of changes that can bring about improvements in both the cost and performance of IT; and, convincing a significant subset of both the buyer and seller communities to accept these changes. Change, in any form, takes time and consistent persuasion by advocacy groups representing both communities.
One of the biggest gaps is the need for organizations at all levels to have an enterprise architecture in place before beginning the procurement process. Numerous papers have been written describing the need for enterprise architecture, as well as approaches to creating such architecture; however, the buyer community has been slow to accept and develop the enterprise architecture model.

Because enterprise architectures encourage the sharing of information in a way that minimizes the implementation dependencies between systems, it promotes interoperability and data sharing. An additional advantage of enterprise architecture is that it encourages buyers to acquire complex systems one module at a time with assurance that, as subsequent modules are acquired, they will fit within a defined framework. A goal of procurement innovation must be a wider adoption of enterprise architecture as a guiding force in the procurement process.

The manner in which IT is procured has undergone significant and rapid change over the past few years. The procurement of systems has evolved from custom or partially customized systems to COTS systems to SaaS (in which the buyer purchases services, in many cases, by the “unit”). In the past two years, a new delivery system referred to as “the cloud” has emerged. The cloud is an extension of the SaaS approach, with both hardware and software being purchased as a service.

These changes have led to a small but growing approach known as “cost free information services.” In such cases, the buyer passes on the costs to the users and requires the seller to provide the service with no upfront cost, with the expectation that the seller will recover their costs via profits from their share of the proceeds from sales of units to the end-user customers. There is yet little guidance as to how procurements for such services, and the subsequent contractual agreements, should be structured.
7 CONCLUSION

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. Further, a significant amount of effort needs to be devoted to examining many of the areas addressed to ensure that the best approaches to these problems have been identified.

Procurement plays a pivotal role in how the SLG market acquires and deploys information 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 what our systems cost. Procurement practices like technology 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 the system technology, successful procurements demand a different approach. It is not cost effective to create an adversarial relationship between the buyer and the seller by encouraging arm’s-length relationships throughout the process.

A number of respected advocacy organizations have conducted surveys and studies and have taken well thought out positions regarding changes that need to take place if procurement is to keep pace with the changing world of technology. It is apparent that developing established provisions to change procurement practices is just a beginning: The most difficult part is persuading 30,000 political subdivisions to adopt new policies and practices.
### 8 APPENDICES

#### 8.1 APPENDIX A – Acronyms and Abbreviations

<table>
<thead>
<tr>
<th>Acronym or Abbreviation</th>
<th>Definition</th>
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<tbody>
<tr>
<td>ACT-IAC</td>
<td>American Council for Technology – Industry Advisory Council</td>
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<tr>
<td>APPA</td>
<td>American Probation and Parole Association</td>
</tr>
<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
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<tr>
<td>CIO</td>
<td>Chief Information Officer</td>
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<tr>
<td>CMS</td>
<td>case management system</td>
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<tr>
<td>COTS</td>
<td>commercial off-the-shelf</td>
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<tr>
<td>CSG</td>
<td>Council of State Governments</td>
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<tr>
<td>CTO</td>
<td>Chief Technology Officer</td>
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<tr>
<td>GFIIPM</td>
<td>Global Federated Identity &amp; Privilege Management</td>
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<tr>
<td>GRA</td>
<td>Global Reference Architecture</td>
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<tr>
<td>GWU</td>
<td>George Washington University</td>
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<tr>
<td>IBR</td>
<td>incident-based reporting</td>
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<td>IP</td>
<td>intellectual property</td>
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<td>IT</td>
<td>information technology</td>
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<td>JIS</td>
<td>justice information sharing</td>
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<tr>
<td>NACo</td>
<td>National Association of Counties</td>
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<tr>
<td>NASCIO</td>
<td>National Association of State Chief Information Officers</td>
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<td>NASPO</td>
<td>National Association of State Procurement Officials</td>
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<tr>
<td>NCJA</td>
<td>National Criminal Justice Association</td>
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<td>NGA</td>
<td>National Governors Association</td>
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<tr>
<td>NIBRS</td>
<td>National Incident Based Reporting System</td>
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<tr>
<td>NIEM</td>
<td>National Information Exchange Model</td>
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<tr>
<td>PBA</td>
<td>Performance-Based Acquisition</td>
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<tr>
<td>PM</td>
<td>Project Manager</td>
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<tr>
<td>PM-ISE</td>
<td>Program Manager for the Information Sharing Environment</td>
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<tr>
<td>RFI</td>
<td>Request for Information</td>
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<tr>
<td>RFP</td>
<td>Request for Proposals</td>
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<tr>
<td>ROI</td>
<td>return on investment</td>
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<tr>
<td>SaaS</td>
<td>Software as a Service</td>
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<tr>
<td>SAML</td>
<td>Security Assertion Markup Language</td>
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<tr>
<td>SBI</td>
<td>Springboard Initiative</td>
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<tr>
<td>SDO</td>
<td>standards development organization</td>
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<tr>
<td>SLA</td>
<td>Service Level Agreements</td>
</tr>
<tr>
<td>SLG</td>
<td>state and local government</td>
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<tr>
<td>SOA</td>
<td>Service-Oriented Architecture</td>
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<tr>
<td>SOW</td>
<td>Statement of Work</td>
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<tr>
<td>T&amp;C</td>
<td>terms and conditions</td>
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<tr>
<td>Task Force</td>
<td>Task Force on Procurement Innovation and Reform</td>
</tr>
<tr>
<td>WIS³</td>
<td>Workshop for Information Sharing and Safeguarding Standards [PM-ISE]</td>
</tr>
<tr>
<td>WSDL</td>
<td>Web Services Definition Language</td>
</tr>
<tr>
<td>XML</td>
<td>eXtensible Markup Language</td>
</tr>
</tbody>
</table>
8.2 APPENDIX B – Agencies Focusing on Procurement Reform and Innovation

American Council for Technology Industry Advisory Council (ACT-IAC)
3040 Williams Drive, Suite 610
Fairfax, VA 22031
http://www.actgov.org/Pages/default.aspx

American Probation and Parole Association (APPA)
PO Box 11910
Lexington, KY 40578-1910
http://www.appa-net.org/eweb/

IJIS Institute
44983 Knoll Square
Ashburn, VA 20147
http://ijis.org/

National Association of Counties (NACO)
25 Massachusetts Avenue, NW
Suite 500
Washington, DC 20001
http://www.naco.org/Pages/default.aspx

National Association of State Chief Information Officers (NASCIO)
201 East Main Street, Suite 1405
Lexington, KY 40507
https://www.nascio.org/

National Association of State Procurement Officers (NASPO)
201 East Main Street, Suite 1405
Lexington, KY 40507
http://www.naspo.org/

National Governors Association (NGA)
Hall of the States
444 N. Capitol St., Ste. 267
Washington, D.C. 20001-1512
http://www.nga.org/cms/home.html

TechAmerica
601 Pennsylvania Avenue, NW
North Building, Suite 600
Washington, DC 20004
http://www.techamerica.org/
8.3 APPENDIX C – Bibliography of Procurement-Related Resources


