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**The Case for Federal eProcurement
Translating Private Sector Benefits
to the Federal Government**



Executive Summary

In recent years, private sector organizations have leveraged the use of eProcurement systems to not only improve their operational efficiency and competitive advantage, but also increase bottom line profitability. Legislation enacted in recent years, coupled with an initiative from the President's Management Council's Electronic Processes Initiative Committee (EPIC), has paved the way for the public sector to reap similar benefits from implementing eProcurement systems. However, understanding the fundamental differences between the basic operating philosophies of private and public sector organizations is key to a successful experience.

First, public sector organizations are not concerned about competitive advantage and profitability. Second, operational efficiency is defined differently. Within the public sector, efficiency is mitigated by the Constitutional requirement to distribute authority among the Executive, Legislative and Judicial branches of government. Even though taxpayer's money must be spent in an efficient manner, it must be done in accordance with the Constitutional requirement to meet distributed policy mandates. Finally, public sector organizations are concerned with preserving their top line, the amount available for appropriation, rather than the bottom line.

Laying the Groundwork for Federal eProcurement

In the last decade of the 20th century, public sector financial administrators cast covetous glances toward the private sector. Corporations were making historic strides in improving operational efficiency through business process reengineering (BPR) and information technology (IT) was enabling faster, better workflow and knowledge capture. The results were not only improved productivity and enhanced competitiveness, but also significant increases in bottom line profitability and returns on investment (ROI). United States

industry was leading the world in full enterprise automation and the U.S. government wanted to emulate its for-profit counterparts.

In 1998, the President's Management Council's Electronic Processes Initiative Committee (EPIC) issued its first report, *Electronic Commerce for Buyers and Sellers*, outlining its strategic vision for electronic commerce within the Federal government: "By the year 2001, all Federal agencies will support their programs by making available customer friendly electronic purchasing tools integrated with end-to-end commercial electronic processing of payment, accounting and performance reporting information."

At the same time, Federal mandate was pushing all agencies and departments to "do more with less", and legislative reforms were changing the way that government conducts financial management and reshaping spending. In the five years prior to the EPIC report, Congress dramatically reshaped the legal structure under which agencies acquire resources by enacting the legislation highlighted in Figure 1-1.

Early Adopter Success in the Private sector

While the government was busy laying the foundation for public sector eProcurement, early adopters within the private sector were already seeing results with their pilot programs. Among the first to implement an eProcurement system was Cisco Systems, Inc.

Major Federal Procurement Legislation Since 1993

Fig. 1.1

1 9 9 3	Government Performance and Results Act (GPRA)	Establishes a framework for improved accountability and performance management within Federal agencies
1 9 9 4	Federal Acquisition Streamlining Act (FASA)	Simplifies procurement procedures and reduces barriers to commercial products while streamlining the bid process
1 9 9 6	Federal Acquisition Reform Act (FARA)	Mandates the acquisition of commercial items in a manner similar to that used by commercial businesses and encourages the use of purchase cards
1 9 9 6	Clinger-Cohen Act	Broadens exemptions from cost or pricing data requirements when acquiring commercial items, promoting "best value" decision making

Cisco Systems, Inc. and eProcurement

In May 1997, Cisco became one of the earliest adopters of an eProcurement solution when they announced a pilot program with Ariba, Inc., an eProcurement market leader. To accomplish its overarching goal of increasing operation efficiency, Cisco established four requirements for an eProcurement system:

- Cost Reduction
- Cycle-time Reduction
- End-user Satisfaction Improvement
- Control Improvement

Initially, they felt that the cost of processing a single purchase order could be reduced from \$130 to \$30. By the time that the system was fully implemented, with more than 16,000 employees using the system, Cisco was actually able to reduce costs even further than originally projected to \$9 per purchase order.

Cisco reduced the cost of processing a single

***Purchase order from \$130 to \$9
Within two years.***

The true measure of success for the private sector, however, is how well this system increases bottom-line profitability. For large companies like Cisco, which spend in excess of \$1 billion annually on the products that are now purchased electronically, these savings have a huge impact on the bottom line, and more than pay for themselves within one to two years of implementation. It is precisely these increases in profitability and staggering returns on investment (ROI) that the federal government envisions with its own eProcurement system implementations.

eProcurement in the Public Sector

Private sector businesses principally strive to achieve efficiency, competitive advantage and profitability. To accomplish these unified goals, authority is centralized, policy is unilateral and the enterprise is structured under a single, organizational philosophy.

Conversely, public sector organizations in a democracy principally strive to serve their constituents' interests and needs, manage budgets according to legislative and administrative orders, and maintain a system of checks and balances consistent with a policy of full disclosure and public review. To achieve these disparate goals, authority is distributed, policy is developed multilaterally by entities organized in dynamic opposition, and the enterprise is structured as an aggregated federation of semi-independent entities.

***Legislation enacted in 1993 began laying the foundation for
Federal eProcurement, even though the first official findings
did not appear until 1998.***

Paradigm Shift in Business Philosophy

Competitive advantage and profitability, tenets within the private sector, have little meaning in the public sector. Operational efficiency, seen as a means to achieve both competitive advantage and profitability in the private sector, also takes on a new

Fig 1.2

Objectives for eProcurement Systems in Private and Public Sectors

Private Sector

- Increase bottom-line profitability
- Allow uniform access to standardized supplier information
- Leverage buying power of corporation to provide uniform pricing and contracts among multiple divisions and groups
- Increase the speed of the procurement cycle
- Increase compliance with established contracts by reducing off-contract (maverick) purchasing

Public Sector

- Increase top-level funding availability
- Create open markets in which every provider (especially small and disadvantaged 8(a) companies) can compete on a level playing field
- Harness aggregated buying power of Federal government to achieve dynamic pricing of goods and services

clients must translate these needs into concepts that can be understood by prospective solution providers. Figure 1-2 provides a synopsis of the overall objectives for an eProcurement system within the private sector and how they can be translated to meet public sector requirements.

AEF (not ROI): The Key to Financial Success

When eProcurement solution providers pitch their product to a prospective client, they tout its ability to generate outrageous returns on investment (ROI). It is not uncommon for companies to claim three-year ROI's exceeding one hundred percent and proceed to show that this will flow right to the bottom line. This is not only an impressive money saving opportunity for private companies, but also something that gets the attention of key decision makers at all levels.

If the same pitch is made to the public sector, agencies just shake their heads. Because public agencies are generally cost centers, ROI does not carry the same clout and panache as it does with profit centers. Even though the underlying message is the same, namely that eProcurement systems will save the public sector a significant amount of money, the terminology needed to convey that message must be changed.

***Appropriation Efficiency Factor (AEF):
The measure of the net savings generated by the
eProcurement solution that is available for re-appropriation,
in a given budget cycle, divided by the initial investment
in the eProcurement system.***

Public sector entities are not as concerned about savings flowing to the bottom line as they are about preserving the top line, the amount available for appropriation. Therefore, any savings that a public sector agency achieves through the implementation of an eProcurement system increases the funds available for appropriation by decreasing each procurement obligation, hence improving the appropriation efficiency of the agency. The magnitude of this appropriation efficiency, or Appropriation Efficiency Factor (AEF), becomes the public sector equivalent of ROI.

Key Stakeholder Benefits From Maximum AEF

Fig 1.3

Program Managers:

- Direct beneficiaries of increasing AEF as less of their appropriation would be spent on procurement and can be used to fund their primary mission

Finance Staff:

- Able to highlight their ability to more efficiently purchase goods and services, thus preserving program managers' appropriations

Procurement Staff:

- Able to generate reports which show that they are able to reduce O&M costs, which demonstrates results in meeting GPRA performance goals

By definition, the Appropriation Efficiency Factor (AEF) is the measure of the net savings generated by the eProcurement solution that is available for re-appropriation, in a given budget cycle, divided by the initial investment in the eProcurement system. An AEF of 1.0 means the amount available for reappropriation is equal to the amount initially invested in the eProcurement system. One important distinction to note is while an AEF can be calculated for each year, a cumulative AEF can also be calculated by adding annual AEF values. This will enable agencies to understand the entire lifecycle benefits of implementing an eProcurement system.

Stakeholder Benefits of AEF

One of the key underlying messages is to understand which agency stakeholders benefit most from increasing AEF and generating eProcurement savings. While not every stakeholder will actually be able to use the money that can be reappropriated, there are other benefits that each stakeholder can claim as their own, therefore improving their own standing within the agency. Figure 1-3 outlines the stakeholders and the benefits that each derives.

Increasing AEF

Like the private sector, public agencies also need to think of the potential savings and subsequent increase in AEF in terms of direct and indirect cost reductions, or as eProcurement solution providers describe them, “hard”—and “soft”—dollar cost reductions. Direct, or “hard-dollar”, cost reductions are associated with the actual

purchase of goods and services, whereas indirect, or “soft-dollar”, cost reductions are associated with the process of how those goods and services are purchased.

Direct Cost Reduction

Because direct cost reductions are associated with the actual goods and services purchased, they can vary greatly from implementation to implementation. In order to simplify and isolate where direct cost reductions can be achieved, they are split into three broad categories: Contract Optimization, Contract Compliance and/or Supplier Optimization.

Fig 1.4

Potential Direct Cost Reduction Opportunities and Target Benchmarks

CATEGORY	POTENTIAL COST REDUCTION OPPORTUNITIES	PRIVATE SECTOR TARGET BENCHMARKS (% OF TOTAL \$ PURCHASES)
CONTRACT OPTIMIZATION	<ul style="list-style-type: none"> • Negotiating lower prices • Volume discount • Discounts for electronic ordering 	8%
CONTRACT COMPLIANCE	<ul style="list-style-type: none"> • Reducing off-contract, or "maverick", buying by increasing the visibility and use of organization-wide contracts 	20%
SUPPLIER OPTIMIZATION	<ul style="list-style-type: none"> • Reducing administrative costs • Obtaining better pricing and service from suppliers 	14%

While the actual cost reductions can vary from agency to agency depending upon the type and volume of goods and services purchased, there are target benchmarks that can be used to determine whether or not the agency is maximizing their cost reduction potential. Figure 1-4 identifies potential cost reduction opportunities and the target benchmarks, established in the private sector.

In order to meet these benchmarks, there are clear-cut steps that can be taken by both the private and public sector. However, because of legislative requirements governing purchases made within the public sector, public sector clients often need to go one step further. Although these additional requirements may place restrictions on the specific eProcurement system functionality, they should not affect an agency's ability to meet or exceed the industry cost reduction benchmarks. Figure 1-5 highlights broad steps that can be taken to maximize direct cost reductions in both the private and public sector, along with the additional public sector requirements.

Fig 1.5

Ways to Maximize Direct Cost Reduction

	APPLICABLE TO BOTH PRIVATE AND PUBLIC SECTOR	ADDITIONAL PUBLIC SECTOR REQUIREMENTS
CONTRACT OPTIMIZATION	Leverage the buying power of the organization to negotiate and effectively manage corporate contracts for services (IT, printing, travel etc.), MRO, office supplies and capital equipment	Provide easily accessed, Web-based catalogs using previously negotiated prices for goods and services (GWAC, GSA schedules, agency-specific agreements and other contract vehicles). Maintain budget controls and automate payments across the end-to-end, eProcurement system
CONTRACT COMPLIANCE	Assess, and subsequently, reduce off-contract, or "maverick", purchases, which are any purchases made outside of the approved supplier base, channel or contract	Ensure compliance with purchasing policies, both within departments and across the Federal enterprise
SUPPLIER CONSOLIDATION	Reduce the number of contracts	Sensitivity to rules regarding small business, disadvantaged business and mandatory sources. Rewarding "best value" suppliers, while maintaining fair and open competition

Indirect Cost Reduction

Whereas the direct cost reductions depend upon the type and quantity of the goods and services that are purchased, indirect, or "soft-dollar", cost reductions can be realized with each processed purchase order. Therefore, these cost reductions not only require an analysis of the purchase process to isolate inefficiencies, but also may need business process reengineering (BPR) in order to extract all of the potential cost reductions.

Because the purchasing process is very similar between the private and public sectors, Federal agencies can leverage many of the same process improvements, which have been implemented by their private counterparts. Figure 1-6 categorizes these indirect cost reductions, along with private sector target benchmarks.

Fig 1.6

Potential Indirect Cost Reduction Opportunities and Target Benchmarks

CATEGORY	POTENTIAL COST REDUCTION OPPORTUNITIES	PRIVATE SECTOR TARGET BENCHMARKS (% OF TOTAL \$ PURCHASES)
REQUISITION CYCLE COSTS	<ul style="list-style-type: none"> Streamline the requisition, approval, receiving, and pay processes 	66%
BUSINESS FORM CYCLE COST	<ul style="list-style-type: none"> Streamline and automate forms processing in the organization 	66%
SUPPLIER OPTIMIZATION	<ul style="list-style-type: none"> Reassign employees dedicated to simplified purchasing 	N/A

In order to meet the target benchmarks, buyers need a detailed understanding of the actual purchasing process. Clearly, the greatest indirect cost reductions can be achieved through the elimination or reassigning of employees. Many organizations may be unwilling to make such drastic changes.

Additionally, there are two other factors that can affect the success of process changes, the complexity of the purchase and the degree of decentralization.

While eProcurement systems were initially developed to make simplified purchases more efficient, there is a desire among potential Federal adopters to migrate complex purchases to the electronic systems. Although most eProcurement systems can be modified to meet these complex purchases, there may be limited opportunities in the short run to capture efficiencies as purchasers become accustomed to a new system. Because a cumulative AEF associated with an eProcurement system can be calculated over a multi-year period, it is possible to determine long run efficiencies, even for highly complex purchases. Therefore, a few short-term growing pains should not detract from the large long-term upside potential of the eProcurement system.

Fig 1.7

Ways to Maximize Indirect Cost Reduction

	APPLICABLE TO BOTH PRIVATE AND PUBLIC SECTOR	ADDITIONAL PUBLIC SECTOR REQUIREMENTS
REQUISITION CYCLE COSTS	Savings in labor hours (expressed as dollars) as a result of streamlining the requisition, approval and receiving process after the implementation of an eProcurement system	Increase cost reductions by adding federal-specific purchasing rules to eProcurement system, which will reduce both time and paperwork needed to complete purchase
BUSINESS FORMS CYCLE COSTS	Savings in man-hours due to streamlining and automating forms processing in the organization. Enable purchaser to comply with all of the standard forms required by each company/agency, such as competitive quotations, approval, and reconciliation forms	Ensure compliance with purchasing policies, both within departments and across the Federal enterprise
STAFFING REASSIGNMENT	Reassign the purchasing staff dedicated to simplified purchasing	Strengthen its ability to "do more with less" as significant numbers of the procurement work force leave government service

The eProcurement system will also enable agencies to decentralize their purchasing process, which will not only speed up the purchase cycle, but also enable key decisions to be made based at a much lower organizational level without fear of violating legislative requirements. This rules-based decision system can be modified on an agency-by-agency (or program office-by-program office) basis, which ensures compliance, and furthermore, provides clear tracking and documentation capabilities to meet Federal auditing and reporting standards.

One of the key differentiating factors between the private and public sector is the reporting requirements. While private organizations often keep records for audits and protection against future litigation, there are strict Congressional reporting requirements for all Federal agencies, which go above and beyond what commercial entities release (e.g., Federal Procurement Data System). As the Federal government moves down the path of a more open door and decentralized governing policy, being able to meet these reporting requirements is critical. Agencies are constantly seeking ways to decrease the amount of time needed to generate reports without sacrificing accuracy and addressing all of their constituents.

eProcurement systems will enable agencies to satisfy their reporting needs and those required by law as well as ad hoc purchasing information. Given these reports can be generated in a timely and accurate manner is yet another compelling reason why public agencies should consider the investment in eProcurement systems a sound one.

Figure 1-7 highlights broad steps that can be taken to maximize indirect cost reductions in both the private and public sector, along with the additional public sector requirements.

Conclusion

While private sector organizations have been reaping the benefits of eProcurement systems in recent years, the public sector has yet to fully embrace them. As the private sector touts the increased operational efficiency and productivity, the public sector is more impressed with the significant ROI that directly affects their bottom line profitability.

It is becoming clear that through implementation of eProcurement systems, the public sector can realize the same operational efficiencies and cost savings as the private sector.

Direct cost reductions can be achieved through:

- Increased contract optimization
- Increased contract compliance
- Supplier optimization

Indirect cost reductions can be realized through:

- Reducing requisition cycle times
- Streamlining business form processing
- Reassigning purchasing staff to assist with complex purchasing

In addition, eProcurement systems can be used to meet the mandated and ad hoc reporting requirements imposed on agencies.

The most significant difference, however, is how those savings are reported. In the public sector, the key is preserving the top line appropriations needed to fulfill their primary mission. With the use of an Appropriation Efficiency Factor (AEF), public sector agencies now have a way to calculate how the investment they make in an eProcurement system will benefit every stakeholder in each budget cycle. Now the public sector truly has a way to make a compelling case for federal eProcurement systems.

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