Technology / Management Issues

Focus on Business Processes, Not the Federal Procurement Process

Oswald A. Cartwright, Department of Justice

Introduction

With an increasing Federal Deficit, public outcries for more efficient Government, and a continuing disappointment in the procurement process, some Federal agencies are exploring a concept now known as business process reengineering. The concept is not new; however, because of the concerns just mentioned, it is receiving significant attention, particularly in the Department of Defense (DoD) under their Corporate Information Management initiative.

Oswald A. Cartwright is a member of the procurement team with the Hardware Planning and Acquisition Branch of the Computer Services Staff. Mr. Cartwright and the procurement team have spent the past several months working on a multi-million dollar procurement for central processing units for the Department's two data centers.

Changing the procurement process is a formidable task that will involve both political and business philosophical paradigm shifts. Federal Data Center Managers need to examine the internal processes while waiting for the external environment to undergo its lengthy change.

Background

Since Federal Data Center Managers cannot unilaterally change the Federal procurement

process, they must explore methods to use the existing process to their advantage. The nucleus of business process reengineering is the uniform flow of information within an organization as well as with the organization's customers. Electronic Data Interchange, Electronic Bid Boarding, Quality Purchasing, and Benchmarking are among the latest methods for reengineering the processes that drive the purchasing and procurement functions.

Scope

As stated before, the concept of business process reengineering is not new. Its roots come from Dr. Walter A. Shewhart. Working for Bell Laboratories in the late 1920s, Dr. Shewhart developed a scientific approach to process control. You may remember the famous Hawthorne Works study where the Bell Labs first tested the concept of statistical process control in a manufacturing environment. The concept gained its notoriety through Dr. W. Edwards Deming in the 1950s, when he exported the concept to Japan.

Business process reengineering has six parts:

1. Streamlined Production Flow,

2. Just In Time Inventories,

3. Flexible Production Flow,

4. Quality Circles,

5. Concurrent Reengineering, and

6. Continuous Improvement.

Simply stated, streamlining production flow is a business reengineering precept that reduces the number of steps and removes bottlenecks in business processes. A supporting principle is Just In Time Inventory management, a business reengineering method that ends inventory backlog. Just In Time Inventory management sets up automatic triggering processes for the deployment and delivery of inventory. This important concept reduces idle inventory and its associated costs.

The third business reengineering concept is Flexible Production Flow. If one increases responsiveness to inquiries, the outcome is quicker response to problems and atypical circumstances. The fourth concept, Quality Circles, are self-managing teams and empowered workers that take control of their functions and responsibilities. Concurrent Reengineering, the fifth concept, includes replacing sequential, vertical processes with horizontal and simultaneous responses. Finally, business reengineering consists of Continuous Improvement where change is dynamic and set up with automatic feedback mechanisms for evaluation.

Federal Data Center Managers have an opportunity to streamline their business processes, reduce their purchasing costs, and add flexibility to their operations by examining these six methods for reengineering their internal procurement process. Inherent in this revolutionary process is a negotiated and collaborative relationship with their contracting activity.

Methodology

The first method for reengineering the business processes associated with procurement is Electronic Data Interchange (EDI). EDI is an electronic order system that transfers information and purchasing requirements between the requirer, purchaser, and supplier. These processes replace traditional paper systems requiring typing, mailing, and telephoning documents such as invoices, purchase orders, requisitions, renewals, and changes.

Typically, a contracting employee and a supplier use the computer- to-computer system to learn about and confirm pricing, delivery, stock

invoice, and purchase order data. They do not however, have access to internal files. The Federal Acquisition Regulation (FAR) gives Agencies the authority to use electronic tools for purchases under $25,000.00, which make up more than 75% of all procurements.

The DoD, Defense Information Systems Agency, and the Defense Commercial Communication Office use a streamlined electronic bulletin board through which DoD activities can order personal computers. The General Services Administration (GSA) is planning the automation of multiple award schedules. The General Accounting Office (GAO) says that agencies may use EDI technologies provided there are sufficient controls. GAO also maintains that electronic formats have the ability to provide as much integrity as written contracts.

EDI offers several advantages relating to business process reengineering. First, it reduces the cost of purchase orders, which range from $50 to $75 per transaction. This allows a streamlined flow of the inventory and delivery processes, and an opportunity to take full advantage of discounts. Additionally, one can monitor inventory cost and reduce warehouse expense. Typically, data centers buy and manage bulky and costly printer and paper supplies. EDI allows ordering with Just In Time methods. Agencies ask suppliers about the status, delivery quantity, and inventory cost, which decreases the management of warehouse and supplies inventory.

Second, EDI reduces lead time, time used in ordering, and processing and mailing time. Activities can replace these vertical processes by disseminating the same information simultaneously. This is an obvious disadvantage since activities pay invoices within discount periods and make prompt payments according to applicable laws. EDI can stop duplication, lost information, misinformation, and the bottleneck of sometimes unnecessary reviews/approvals.

Third, direct transmission between vendor computers and the contract computers reduce the chance of financial errors. Direct transmission and accuracy provide managers with real-time data on purchases and payments as well as vendor account information. Activities can develop budget projection and forecasting accurately with methods that optimize day-to-day expenditures and cash flow. Even further, activities should realize productivity improvement, with their employees spending significantly less time administering, tracing, and sorting contract work.

If they haven't already, Federal Data Center Managers should consider empowering their employees with responsibility for recognizing opportunities to control the internal procurement process and influence the organization's effectiveness. When there are reimbursable agreements for contract activity there can also be savings. Finally, this is an opening for developing a mutual productive relationship with suppliers who have awarded contracts. In creating these relationships, the goal is to develop a commitment to quality and to develop effective legal partnerships. This builds a relationship where vendors understand Federal Data Center mission statements, their roles in supporting these missions, and their contributions to the public.

The shared techniques and methods achieved through Benchmarking are related to establishing commitments. Benchmarking is the second method for driving business process reengineering. In this context, Benchmarking sets reference points to compare performance of a procurement system and the suppliers. The Center for Advanced Purchasing Studies (CAPS), in Tempe, Arizona, collects performance data from private sector purchasing departments such as those in telecommunications, automated data processing, and semiconductors.

Private industry establishes purchasing performance benchmarks and uses them to compare performance. CAPS develops

benchmarks by determining the specific data to collect and by defining a benchmark item. They create a participant list, distribute data instruments, and analyze and distribute the developed standards.

In supplier evaluation benchmark standards, CAPS provides suppliers with a report card of their performance. This is another part of the relationship desired with suppliers. Suppliers profit by improving their products or their processes. The Federal government can benefit by using the suppliers that employ cost-effective resources.

Some agencies are now focusing on supplies, services, and materials that are not only competitively priced but are high in quality. The GSA-touted Greatest Value Approach to source selection involves looking at proposals based on the solicitation's technical factors and weighing them against preestablished evaluation standards and the proposal's total cost. This allows the source selection authority to exercise judgement through a cost technical trade-off process (See FAR Part 15 and Federal Information and Resource Management Regulation Subpart 201-39.15 for further information).

Benchmarking forces continuous improvement in the source selection process, analysis of performance, and continuous rearrangement of methods that guide the procurement process. Agencies can borrow purchasing techniques and share knowledge and experience on contract formulation, dissemination, and evaluation. Federal Data Center Managers can optimize the use of resources by sharing suppliers and assets. Once the government establishes evaluation factors, Federal Data Center Managers can use EDI to evaluate the performance of both the supplier and the Agency, and to seek the necessary improvements for streamlined processing of information.

Consistent with Benchmarking is the idea of Strategic Alliances (SA). SA are partnerships between organizations that share information about management practices, manufacturing, training, suppliers, and use of resources. SA has ties to benchmarking in that it establishes standards for information sharing and continuous improvement. Federal agencies can institute benchmark methods and SA to take advantage of opportunities to be practical, productive, and competitive. This system of business process reengineering can be further enhanced by determining the methods, products, and procedures for improving their procurements.

The third driving force in reengineering the business processes associated with procurements is sound market research. The basis of the Competition In Contracting Act of 1984 and FAR Part 6 Competition is the facilitation of competitive acquisitions. Consistent with FAR Part 7 Acquisition Planning is the premise that competitive procurements achieve economic, technical, and supportable goals that are both useful and best suited for the government.

Typically, agencies use The Commerce Business Daily and the Federal Procurement Data System to identify the interest in Federal contracts as well as current Federal contractors. However, sound market research includes investigating the market, visiting potential sources, attending conferences, and obtaining literature. Market research also includes analyzing procurement history and examining business and trade directories to identify firms for Federal contract work.

Reengineering a business process includes evaluating supplier performance and identifying superior products. Market research is investigating the market status of technology, availability and application to mission requirements that determine contract approach, and areas for large savings; and assessing new products for risk.

Business process reengineering proposes increasing responsiveness to inquiries for

products and services. Market research assesses the strengths and weaknesses or methods of products and processes. Reengineering maintains continuous improvement by encouraging change with feedback mechanisms for evaluation, market analysis, past procurement activity to revise requirements, specifications, and contracting approach. Continuous Improvement includes quality of purchased products, services provided, cost, and technology. It looks at the areas provided by Federal employees, sales persons, contractors, distributors, and suppliers. Marketing also includes obtaining literature on trends, reliability and prices.

Visiting potential new sources to target current methods as well as encourage new and better sources to respond to requirements is also related to change. Federal Data Center Managers can make a small investment in market research and expect a significant return in identification of superior products, methods, and processes.

Key Management Considerations

Using any of the methods outlined above becomes moot or ineffective, however, without the commitment of senior managers. The last (and most often the critical part) of business process reengineering is leadership. Federal Data Center Managers must change the paradigm of an organization's culture so the business process reengineering concept will permeate their staffs.

They can accomplish this paradigm shift by demonstrating a need for efficient, low-cost service for their clients and mandating superior quality and service from the suppliers. The strategic plan for the organization should succinctly direct the principles of business process reengineering for managing the operation of data centers. Acquisition planning should exhibit sound market research to identify trends, products, resources, and vendors.

Managers must commit their resources. They should empower and hold mid-level managers responsible for commitment to operational excellence. They should empower staff with the authority and responsibility as agents of change to implement business process reengineering as a necessary force to maintain a healthy base to serve customers. Business process reengineering must have clear goals for providing quality, low-cost service to the customer. Finally, organizational structure, policies, and procedures should demonstrate commitment to improve business processes supporting procurements.

Conclusion

Managers of Federal Data Centers have little control over the Federal procurement process. Major changes to this process will evolve through the political process. To wait for a major change and not use the management tools available to improve the existing processes could waste dwindling resources. As technology evolves and public demands change, the need to process information efficiently and cost-effectively becomes paramount. Although not a panacea, revisiting and remodeling the way we now do business is certainly a viable option to doing nothing.

The premise of this paper assumes that executing business process reengineering (with streamlined production flow, Just in Time Inventory, Concurrent Reengineering, and Quality Circles), combined with EDI, Benchmarking, Marketing, and Leadership, can offer Federal Data Center Managers increased efficiency, enhance public and customer satisfaction, and protect public resources.