The US Postal Service Uses Optimization-Enabled Sourcing to Deliver Big Savings

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The US Postal Service is one of the largest organizations in the world. An independent federal agency, the Postal Service is the only delivery service that visits every address in the nation, 146 million homes and businesses, delivering nearly half the world's mail. It has 37,000 retail locations, annual operating revenue of $75 billion in FY08, and pays for operating expenses through the sale of postage, products, and services, not tax dollars.

Today's competitive communications and delivery market continues to change. With an annual purchase spend exceeding $12 billion, the Supply Management (SM) organization plays a critical role in supporting the Postal Service's strategic and business goals. SM works proactively with internal and external business partners to deliver best-value solutions and integrated supply chains that are timely, cost effective, and operationally efficient.

Rationale for the Initiative. The Postal Service's SM organization has always been an early adopter of sourcing technology. SM first implemented Reverse Auction in 2000 and has been successfully using it ever since, conducting as many as 900 auctions per year. However, SM also needed a tool that could perform more robust analyses of complex requirements and allow more collaboration with suppliers. Because of the size and complexity of Postal Service operations, many sourcing events involve more than $100 million in spend, hundreds of line items, and dozens of competing suppliers. In addition, many high-spend sourcing events involve strategic or core commodities. SM sought a tool that would enhance supplier collaboration by giving them more flexibility to submit bids that best reflect their capabilities.

As an additional driver, in 2007 SM released the *Supply Management Three-Year Strategic Plan, 2007–2009*. The plan was created to guide SM activities today and in the future by defining our purpose and ideal state, identifying strategic initiatives, and defining the value measures for our progress. The Strategic Plan clearly identifies technology as one of five critical dimensions for advancing the efficiency and effectiveness of SM. The Strategic Plan also establishes an organizational goal to deliver $2.5 billion in cost reductions, called Supply Chain Management (SCM) Impact, by the end of FY09 through the use of innovative supply chain tools and techniques, such as electronic sourcing.

Date Range Compliance. SM first implemented Optimization in late 2005, primarily for transportation sourcing. Since then, SM has steadily increased awareness and adoption of the technology. In 2007 through 2008, the Postal Service has realized the greatest levels of integration of Optimization into the strategic sourcing process and has expanded the use of

Optimization into new spend categories, such as credit card services, national banking services, and spare parts.

Impact on the Organization. Optimization-enabled sourcing technology has allowed Postal Service suppliers the flexibility to pick items from the total solicitation package on which to bid, create their own bundles, and offer conditional discounts. The optimization technology has also helped SM staff analyze thousands of supplier bids alongside its own internal business rules and the preferences of multiple stakeholders. SM staff can now identify the true cost of business rules and preferences so that supplier selection decisions can be made knowing the associated cost. Being able to show the actual cost of purchasing decisions has been an important element of the Postal Service sourcing process. Through Optimization technology, the Postal Service can identify optimal contract award allocations and has the data needed to justify its best-value decisions.

Leadership and Innovation. The Postal Service SM organization has demonstrated leadership by implementing a new technology to handle its top-tier, highest spend, and most complex sourcing events, and by successfully integrating it into its strategic sourcing process. SM has provided Optimization training to its staff, developed a web page on the Postal Service Intranet with Optimization information and resources, and successfully used the technology to reduce sourcing cycle time and achieve cost savings. In addition, SM has demonstrated innovation by moving beyond the simplified bidding process of auctions to a more flexible, collaborative environment that allows suppliers to submit expressive or conditional rule-based bids. This has allowed the Postal Service to use sourcing technology on strategic, core commodities that would otherwise be sourced using manual processes and spreadsheets. SM can now perform real-time optimization on both price and non-price bid attributes to determine the optimal allocation of business among suppliers.

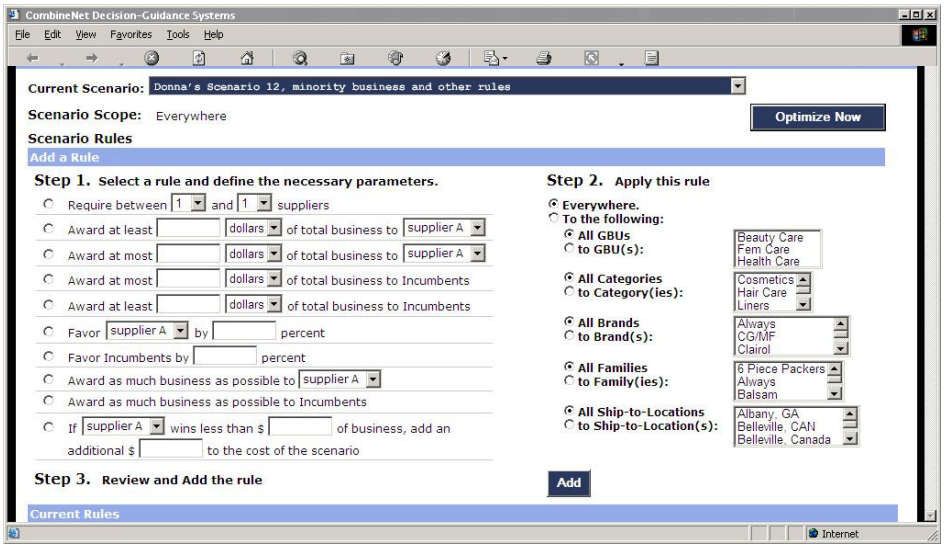
The flexible, collaborative bidding environment allows suppliers to submit expressive or conditional rule-based bids. These bids can include varying order quantities, alternate offers, substitute products or services, volume discounts, tiered pricing, conditional offers, and supplier-created bundles. For example, a supplier may specify “If you give me business in the Southeast Area, I will give you an extra 3% discount in the Capital Metro Area” or “If you give me 10 or more sites, I’ll give you a 1% discount; If you give me 20 or more sites, I will give you a 2% discount; If you give me 30 or more sites, I will give you a 3% discount.” Suppliers can submit their expressive bids directly into the system and those bids are immediately available for scenario analysis. Without Optimization, the SM staff would have to collect these bids qualitatively via written proposals or spreadsheets, making analysis time consuming and difficult.

SM staff can also input multiple business constraints, preferences, or rules into the Optimization tool to compare different award scenarios. Typical Postal Service business preferences include supplier quality, location-specific requirements, supplier diversity, service-level requirements, and item attributes. In some cases, the Postal Service has created over fifty business constraints in a single scenario. Constraints Postal Service buyers commonly use include:

- Allocation constraints – allow buyers to award a certain amount of business to one or more suppliers (Example: Award at least 15% of business to diverse suppliers.)

- Limit constraints – allow buyers to set maximum awards on items or groups of items (Example: Award no more than 50% of business to any one supplier.)
- Favor constraints – allow buyers to favor or weight one or more suppliers (Example: Favor incumbent suppliers by 10%.)
- Supplier constraints – allow buyers to set the minimum or maximum number of suppliers (Example: Award to no more than five suppliers.)
- Exclusion constraints – allow buyers to prevent a supplier from being awarded a contract (Example: Exclude Supplier A from the Denver location because of poor past performance.)

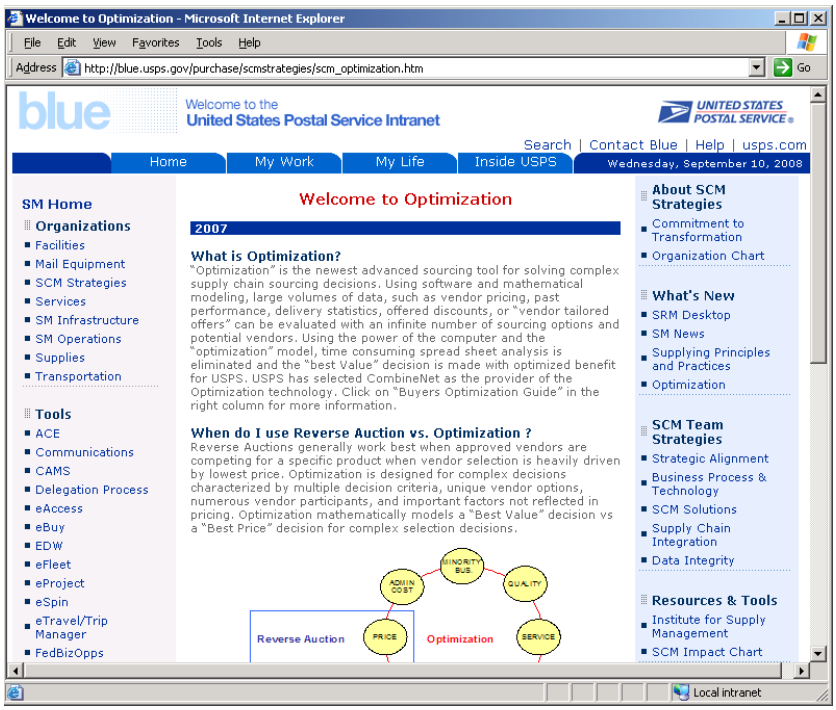
The Optimization user interface for specifying constraints is shown below.



Quantified and Validated Results. From FY06 to FY08, SM used the Optimization technology on 15 major sourcing events. As an indicator of complexity, the average event involved 715 line items, 23 suppliers, and $128 million in spend. Events spanned a broad range of categories, including transportation, supplies, services, and equipment. Optimization is currently being used to source $57 million in fuel delivery services, $44 million in one-way truckload transportation, $32 million in belting parts, and $46 million in holiday-season transportation. The average annual cost reduction achieved was $5.2 million per event, which does not include administrative and efficiency savings. All cost reductions undergo a rigorous documentation and review process, including final approval by the Finance Controller, consistent with SM Administrative Procedures. Results are posted on the SM Dashboard on the Postal Service Intranet.

Sustaining the Initiative.
SM has created a web page on the Postal Service Intranet to provide information and resources to all Postal Service staff on Optimization-enabled sourcing technology. The web page describes Optimization, how it differs from Reverse Auctions, and the proper application for each technology. The Optimization web page includes the following:

- Buyers Guide to Optimization
- Upcoming Training Schedule
- External Articles and Publications
- Postal Service Case Studies
- Internal References
- Sample Optimization Program Plans
- Solicitation Language
- Sample SCM Impact Reports



Consistent with the *Supply Management Three-Year Strategic Plan*, SM plans to further integrate and institutionalize Optimization technology into its strategic sourcing process. During 2009, SM will be implementing a self-service version of Optimization that allows staff to build and manage events by themselves with no IT support or software customization. To date, all Optimization events have required professional services and software customization. At the same time, SM will be integrating Optimization, RFx, and auction technologies into a single seamless sourcing solution. Optimization can then be launched by clicking on an icon on the RFx desktop, and all supplier information, bid data, and evaluation scores from the RFx process will be available for scenario building and analysis.