

**Procurement:
From the “20th to the 21st Century”**

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Abstract

Since the 1980's, LSU's purchasing system business processes' along with the applications that support them haven't changed much. The original purchasing system was implemented through hierarchical, logically related IMS databases. The users processed purchases by routing and approving paper forms and entering data into a mainframe application. Advances in technology, the need for improved workflow and the need for better communication led to discussions about the redesign of the Purchasing Administrative System. A committee was formed in 2003. The committee took part in the following activities: defining the requirements of the new system, evaluating the existing business processes, identifying deficiencies, defining solutions, and designing as well as testing the new application. The new Procurement application was implemented in production on February 13th 2006. The system is the primary source for online ordering at Louisiana State University and its' other campuses. The new online system has improved workflow, made data more readily available and has improved communication between departments, Purchasing and vendors.

Introduction of the Organization

The Purchasing Office operates under the Office of the Vice Chancellor for Finance and Administrative Services at Louisiana State University. The objective of the Purchasing Office is to procure goods and services to sustain, foster and support the administration, educational and research missions of the University.

Louisiana State University (LSU) is a public university holding land-grant, sea-grant, and space-grant status. The flagship university is located in Baton Rouge, Louisiana. However, there are ten educational institutions total, along with a health care division managing the Louisiana's public hospital system. LSU serves its surrounding communities with programs focusing on instruction, research and public service. The procurement system serves the following campuses: LSU, LSU Systems (Systems), LSU at Alexandria (LSUA), Pennington Biomedical Research Center (PBRC), LSU at Eunice (LSUE), Paul M. Hebert Law Center, and LSU Agricultural Center (LSU Ag).

Statement of the Problem/Initiative

The original Procurement system designed in 1980, although functional, lacked the ability to take advantage of new technologies in order to improve workflow. As state and local government procurement requirements changed over the years, communication amongst all procurement parties (university departments, Purchasing Office and vendors) has grown in importance as well. An automated improved workflow capability and the ability to become totally paperless became the overall themes that the new procurement system would resolve.

In addition, other issues that will be discussed are:

- Providing university departments with the decision making power of procuring goods and services.
- Creating an Online Order Management process (i.e. requisition, solicitation, bid, purchase order, etc)
- Real time processing to other administrative systems (General Ledger, Accounts Payable, Directory, Equipment Inventory)
- Electronic document routing and document storage
- More consistent reporting capabilities

Design

Once the Procurement initiative was scheduled to start, a committee was formed to serve as the foundation for the project. This committee would identify the requirements of the project. This phase in application development is known as the Requirement definition

phase. The committee consisted of representatives from the Purchasing Office, Financial System Services, university departments, other university campuses and developers.

Starting from day one to the end of the requirement phase, each procurement task was evaluated. This evaluation examined the purchasing office's existing business processes to denote if they adhered to the new state and local requirement changes. In addition, it would often "point out" deficiencies with the existing business processes that resulted in order processing delays between the respective department, the purchasing office and the vendor. Information gathered from the departmental user representatives showed that these delays: resulted from the departmental approval process, total decision making in the purchasing office for simple orders, status of orders unknown, duplicate orders from departments and vendor which resulted in duplicate shipments.

Solutions were discussed that would expedite simple orders from the department, provide mechanisms for faster online approval workflow between departments and purchasing office and the ability to order from university contracts. New processes were established based on this type of evaluation by the committee.

After the requirement's phase was completed, the initiative migrated into the internal/external design phase. This phase developed the application based on requirements that were created in the first phase.

Implementation

The new Procurement application was implemented in production on February 13th, 2006. Prior to that date a selective group of users were chosen and encouraged to test the new system. This was done in an effort to identify possible problems, to generate buy-in to the new system, and to allow users to get acclimated with the new online environment. In addition, training sessions were scheduled to demonstrate how to use the system and inform users of the various ways to find help once the new system went into production. It was very beneficial to encourage participation and buy-in from users during each phase of this project due to the length of time from the requirements definition to implementation.

Benefits

Authorization

All departments have the ability to create, approve and assign purchase orders for simple orders. Simple orders are defined as orders against a university contract. This process has resulted in faster order processing.

Online Order Management

Each department has the ability to issue an entire order online, access the order online and approval process, check status of order and once approved create a purchase order. All of this can be done by the department resulting in faster and more efficient order processing.

Automated Workflow

The manual process of approving an online order required the customer to get each necessary signature. If a required person was not available, the routing process would be stopped until the signature was acquired.

In the Procurement application all approval notifications are sent simultaneously. Multiple people can look at and approve an online order at the same time. Additionally, a person can approve an online order from any computer with internet access – he/she does not have to be physically present. These two factors combine to significantly reduce the amount of time it takes to acquire the necessary signatures.

Electronic Document Storage

IBM's Content Manager replaced the need for paper storage by providing electronic image storing. Currently, online ordering elements such as requisitions, supported documents and invoices are stored locally in the system. They are only accessible through the Procurement application interface. Integration with Content Manager allows the users to see all attachments that accompany the online order.

Real Time Processing

Other administrative systems, such as General Ledger and Accounts Payable are updated in "real time" from the procurement system. Data is kept up to date in all of the interfaced systems which allows for a complete analysis of the process.

Retrospect

The old cliché, “be careful what you ask for” applies to this initiative. Before, all order processing had to be evaluated by the purchasing office. Today, contract release orders can be done by the department from start to finish. This process includes online order management, automated workflow and creation of purchase order. However, there has been resistance from some departments that do not want this authority, citing resource shortages which effects training and knowledge of procurement rules and regulations. Currently, approximately 11% of departments use this function.

In addition, the duration of this project took approximately 3 years to implement presenting significant issues in the form of “scope creep.” This is one reason, why we have started to implement projects in shorter time periods (i.e. 3 month intervals). When examining projects for implementation, the core business processes will be discussed thoroughly. Afterwards, a “borrow, buy, build” model will be addressed based on the outcome of the examination of the core business processes.

In the past, all application development happened “in house.” Since resources have become limited and the demand for applications has increased, “good and fast” application development is more critical. If a core business process can be implemented from an open source model or bought off of the shelf, this would satisfy this requirement.