

2004 SACUBO Best Practices

Physical Plant's Web-Based Customer Communications System

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Abstract

As part of a process definition and improvement project undertaken in 2001, the Physical Plant department learned that the University community was very dissatisfied with facilities-related communications. Specifically, customers explained that they wanted and needed easier access to feedback on the status of work requests placed with Physical Plant.

Faced with the challenge of greatly expanding communication without additional manpower, Physical Plant opted to create a web-based customer communications system that would interface with the existing facilities information system. After months of planning and consulting with customers to better understand their requirements, the web-based Work Order Request Query (WORQ) system was launched in February 2002.

Requests for work are now submitted online through the Physical Plant website, at <http://bf.memphis.edu/pp>. When work requests are submitted, a work order is generated and sent to the appropriate unit in Physical Plant that is then responsible for completing the work and for updating WORQ on the status of their work. Further, the WORQ system provides the customer with a reference number, which can then be used to check the status of the request online 24 hours a day.

Introduction to the Organization

The University of Memphis is a comprehensive urban university committed to excellence in undergraduate, graduate, and professional education; the discovery and dissemination of knowledge; service to the metropolitan community, state, and nation; and the preparation of a diverse student population for successful careers and meaningful participation in a global society. The University offers 15 bachelor's degrees in more than 50 majors and 70 concentrations, master's degrees in 46 subjects and doctoral degrees in 21 disciplines, in addition to the Juris Doctor (law) and a specialist degree in education. The U of M campus is located on 1,160 acres with 201 buildings at more than four sites. The university enrolls more than 20,000 students each semester, and employs more than 2,500 faculty and staff.

The Department of Physical Plant provides custodial service; maintains the campus landscape; and offers full service for air conditioning, heating, plumbing, electricity, electronics, carpentry, and painting. The department is also responsible for University construction contracts, major construction, construction inspection and room modifications. The

department's goal is to maintain and operate University facilities in the most efficient, effective, economical, and safe manner possible.

Statement of Problem/Initiative

Physical Plant had no definitive process by which work orders were originated, tracked, or concluded; in addition, there was no way to ensure that necessary parts were ordered, status checks conducted, or inherent accountability for completing work orders in a timely fashion. Customers of Physical Plant did not have an easy, efficient method for checking on the status of submitted work orders. Employee and customer satisfaction surveys clearly revealed the need for a better communications tool on both sides. Off-the-shelf computer software packages were researched but deemed too expensive, and the decision was made to enhance the current system (MAPPER) to meet our needs.

Implementation

The department of Physical Plant began defining and documenting processes in 1999 as part of an overall quality initiative. To solve the problems identified with the work order system, a cross-functional team was appointed and began meeting for 1.5 – 2 hours each week to design a web-based customer communications system that would interface with the existing facilities information system.

- Phase I occurred when the critical need for communications capability was identified as part of the Business & Finance continuous improvement program during which the overall work order process was streamlined and documented.
- Phase II consisted of identifying the data elements required to capture the necessary information to document and track the work orders; the required web screens were designed.

- Phase II incorporated the assignment of a reference number by which work control can review the work order request information, issue work order to the appropriate craft, and make status of work order available via the web.
- Phase III identified reports to be generated by the system to meet the needs of the various “users” of the new system. Physical Plant supervisors and selected departments across campus were trained in the use of the system.
- Phase IV consisted of a “soft” rollout to test the system with a limited number of users prior to announcing availability campus-wide.

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Benefits

One of the major benefits is that the system has enabled the more effective and efficient use of computer resources that were already in place.

Initially, crafts and trades supervisors were less than enthusiastic due to the addition of about one hour of administrative tasks to their workload daily. This was quickly overcome as they began to see the benefits of the new system, e.g., elimination of duplicate requests, accuracy and completeness of information received, increased efficiency in scheduling work, etc.

Customer reaction was immediately and overwhelmingly positive since a department can log on to the system and track the status of their request and, in many cases, obtain an estimated work completion date. The customer receives an automatic notification when a work order is closed (completed) and has the opportunity to rate Physical Plant’s service on a scale of one to five. If the work order has not been completed, the customer can let us know right away, whereas, in the past it might not have been discovered for weeks or even months. When a work

order has not been completed, the appropriate supervisor is notified and provided with the names of the technicians who worked the work order. If the work order was completed properly and the customer rates the service provided, this rating is logged into the computer and a Customer Satisfaction Index is calculated for each shop every month. If the Index for a given shop falls below acceptable levels, the Assistant Vice President for Physical Plant provides the appropriate supervisor with encouragement to improve.

Retrospect

It would have been helpful if we could have started earlier and had more time to refine the system before going “live.” For example, our automatic system emails are restricted to an eighty-character subject line and an eighty character message. We want to improve that in the future. Also, it would have been better to educate the university community better about what requests appropriately go through WORQ and what goes to other service organizations. We receive requests regularly that should go to Network Services, Telecommunications or Police Services. This information is available in the WORQ HELP system, but we haven’t done an adequate job of training customers on its use.