



Submission to the 2009 Computerworld Honors Program For Tulane University

Introduction

Founded in 1834, Tulane is one of the most highly regarded and selective independent universities in the United States. The University's Document Services Center serves more than 11,000 students and 4,000 faculty and staff across two campuses and two research centers. In 2005, about two thirds of its main campus flooded when Hurricane Katrina hit. Aside from disruption to academic coursework and administration, the University experienced significant infrastructure damage. As one of the largest private employers in Louisiana, Tulane faced a significant task in getting its staff and facilities fully operational and resuming its momentum as an academic leader. The Document Services Center was forced to entirely rebuild its operation, while being tasked with doing more with less to spur the recovery effort and future growth.

Tulane has since emerged from the storm and continues to forge ahead. This year Tulane extended efforts to optimize its document management and print technology and services. Goals for the project included:

- Improve the Center's level of service to the academic community while controlling costs
- Automate and streamline document workflows to speed critical university processes
- Use continual incremental improvements to capitalize on existing infrastructure and ensure future scalability and process improvement

To achieve these goals Tulane had three main areas of focus:

- Deploy a universal print driver to give the Center and end-users a single interface to communicate with a diverse fleet of printers and MFPs, while also simplifying support and reducing help calls.
- Extend its current distributed scanning system to include more staff and faculty departments.
- Enhance the existing enterprise content management system by creating a custom forms workflow solution.

To leverage its resources, in both funding and staff time, the Center put a phased rollout in place:

- Phase 1: The Document Services Center
 - Serves more than 11,000 students and 4,000 faculty and staff

- Staff spends a total of one day a week consulting or fielding support calls
- Phase 2: Accounts Payable Department
 - Consists of 11 Tulane employees
 - Processes 200,000 payments requests per year
 - Spends 80 percent of their day managing information
- Phase 3: Academic Advising Department
 - Consists of 20 Tulane employees
 - Serve roughly 7,000 students
 - A student's file can be anywhere from 20 to 100 pages
 - Spends 40 percent of their day managing information and 60 percent managing relationships with students

Benefits these workgroups experienced following implementation included:

- Phase 1: The Document Services Center:
 - Staff spends 25 to 30 percent less time dealing with support calls, resulting in freed up resources to focus on other projects
 - 95 percent of jobs are completed faster than before
- Phase 2: Accounts Payable Department:
 - Initial savings from scanning documents directly into DocuShare for storage and easy retrieval reached an estimated \$80,000, compared to Tulane's previously outsourced solution
 - Continued savings from the scanning project is approximately \$25,000 to \$30,000 or one full-time staff member's time
- Phase 3: Academic Advising Department (project ongoing):
 - Advisors are spending less time managing information and more time fostering relationships; goal is to continue to free up more time to focus on students
 - To ensure the success of the project with this department, more than 600,000 to a million pages will be converted to digital

In a business climate where controlling costs while improving your level of service is key to weathering the storm, Tulane's project shows how you can leverage your existing infrastructure to do more and illustrates the role document management plays on the bottom line.

The Importance of Technology

The right technology mix was critical to the success of Tulane's project. The Center's existing infrastructure consisted of the following hardware and services:

- A distributed campus-wide fleet of more than 125 networked printers and multifunction systems, including Xerox WorkCentre 7655, WorkCentre Pro 245,

WorkCentre 5632, 5645 and WorkCentre 7335, as well as Phaser 4500, Phaser 6180, Phaser 3635 and Phaser 5500.

- Production printers for high-volume jobs including the Xerox Nuvera 120, DocuColor 252 and two Xerox 4110 copier/printers.
- Software included Xerox DocuShare, SmartSend, VIPP Thin Printer, Centerware Web and Xerox Device Manager.

To do more with this existing infrastructure and investment, Tulane identified the following ways technology enhancements could improve their service level:

- Deploy a Universal Print Driver – The time it takes for the Center staff to deploy, test, troubleshoot and manage a multitude of print drivers—not to mention the time and frustration on the part of the end users who have to become familiar with them—all add up to significant amounts of expense and lost productivity. The Center beta tested Xerox’s Mobile Express Driver and found that by using a print driver that can work on the University network with virtually all devices, regardless of vendor, and simplify the end-user experience with a consistent interface. Staff can spend less time on deploying devices, training end-users and troubleshooting, while at the same time employees can get more work done, more quickly.
- Integrate Automated Forms Workflow with Existing ECM System – The University saw an opportunity to build on its use of DocuShare CPX, Xerox’s content management system, to make forms processing an intelligent workflow instead of a bottle neck. By working with Autonomy, to integrate its Cardiff Liquid Office software with DocuShare, employees can now use Adobe Acrobat electronic forms that intelligently extract information from the form and auto-populate fields like “title” or “deadline to submit” to an appropriate DocuShare folder for approval or archival. That same form could also be more quickly retrieved from DocuShare using content rules that speed processing by pulling the form based on meaningful data points. Three critical forms have been automated through this use of innovative technology:
 - Mail Transmittal – People fill this out when they are shipping outside the university, e.g. by Fedex, UPS
 - Interoffice Mail – People fill out to send campus mail
 - Major Declaration – Students fill out to declare a major

For example, academic advisors can send an electronic form to students to fill out when switching majors. The Cardiff software would automatically save the file as “Last_newMajor_date and time” in DocuShare folders. The advisor previously would have to sift through their folder to quickly access the form they need, can now easily sort and pull batch information by student name, major or date.

- Distribute Intelligent Scanning Tools - To get more from the scanning feature on the University’s fleet of MFPs distributed across the campus, the Center looked to create a toolkit of scanning solutions that meet the unique needs of end-users. For solutions that need to use PDF 4117 controls – 2-D barcodes that store metadata – the Center installed X-Solutions ScanFlowStore or NSI AutoStore. For departments that need intelligent bulk scanning, the Center installed Xerox SmartSend that allows for flexible indexing and routing. These scanning tools adapt to the way faculty and staff work, not the other way around.

Benefits

Education is one of the most information-intensive fields on the planet. The Center's optimization project has revolutionized how we do business:

- Academic advisors are able to spend less time processing hard copy administrative paperwork and more time focused on providing guidance to students.
- Accounts Payable employees no longer need to physically track down paperwork upon each request and go through the mailing / faxing distribution process—it's all done electronically. Retrieving and distributing information is considerably faster, and overall response times have dramatically improved.

Given the success of these two roll outs, other departments at the University are already being given access to these tools and collaborating on custom workflows to bring these benefits to their business unit.

Also, Tulane, like many other institutions of higher learning, has been challenged in these tough economic times to do more with less. This project set a good example for the rest of the University by building on existing resources and enhancing them with low-cost technology solutions to unlock savings and productivity.

Tulane expects to share its best practices with other universities across the nation to illustrate how better document management can improve the bottom line.

Benefits these workgroups experienced following implementation included:

- The Document Services Center:
 - Staff spends 25 to 30 percent less time dealing with support calls, resulting in freed up resources to focus on other projects
 - More than half a million documents have been digitized and archived
 - 95 percent of jobs are completed faster than before
 - Production scanning experience and refinements have reduced first pass errors to less than 3% while increasing throughput by 50%
- Phase 2: Accounts Payable Department:
 - 1,500 to 2,000 sets (1- 100 pages) of documents are scanned and archived in the enterprise content management system each week
 - 60 percent of the department's forms processing is expected to be automated within the next two years
 - Initial savings from scanning documents directly into DocuShare for storage and easy retrieval reached an estimated \$80,000, compared to Tulane's previously outsourced solution
 - Continued savings from the scanning project is approximately \$25,000 to \$30,000 or one full-time staff member's time
 - Both staff in multiple locations and external auditors can now access and store the information they need most within one minute

- Academic Advising Department (project ongoing):
 - Advisors are spending less time managing information and more time fostering relationships; goal is to continue to free up more time to focus on students
 - To ensure the success of the project with this department, more than 600,000 to a million pages will be converted to digital

In addition, given Tulane's strategy of continual incremental improvements that are rolled out department by department, the return on investment is projected to be reached as quickly as 6 months to 2 years.

Originality

Tulane's Document Services Center optimization project was unique in a variety of ways:

- **Business Unit Led** – Unlike many technology projects, Tulane's efforts were lead by the Document Services Center, a business unit within Tulane, separate from the University's IT department. It's proof that the best technology projects are not always initiated by an IT department, but by other business units that recognize how the deployment of smarter technology can improve the way they get work done.
- **Best of Breed Collaboration** – Because the Center does not control their entire information management and technology system, the project could not be completed successfully unless it was approached as a true partnership. Neither the Center nor IT department could dictate purchasing decisions, policies and procedures. Collaboration had to occur every step of the way, including partnering with vendors and the departments. Each group brought their expertise and knowledge areas to the project for a better end result that was both built on business needs and technically sound, as well as designed with specific user-experiences in mind.
- **Scalability** – This project is extremely scalable and can continue to be rolled out campus-wide with limited additional resources, technology or support required. With this foundation in place, the Center can bring a new department online simply by increasing the number of licensees or adding server. And with the IT department running more on VMware it's even easier to get more out of these incremental improvements.
- **Foundations Built on Hurricane Katrina Recovery Efforts** – After Hurricane Katrina, Tulane had to reorganize under diminished resources. It was putting an ECM system, DocuShare, in place to manage documentation related to helping the University gain relief funding from the FEMA and insurance carriers that first showed the University the power of converting documents to digital files and automating workflows. The University's recovery experience positioned them to thrive in today's challenging business climate, where controlling costs while improving your level of service is key to

weathering the storm. It was this experience that created the Center's approach to leveraging its existing infrastructure to do more.

Difficulty

Tulane faced several challenges with this project.

First, the Document Services Center is a business unit within Tulane, separate from the University's IT department. Given the organizational structure, the Center does not control their entire information management and technology system. Responsibility for different portions of the infrastructure fell to either group without an ultimate decision maker.

As a result, the project could not be completed successfully unless it was approached as a true partnership. The Center and IT department had to forgo dictating purchasing decisions, policies and procedures, and collaborate every step of the way.

This challenge and subsequent collaboration strengthened the project. Each group brought their expertise and knowledge areas to the project for a better end result that was technically sound and built on business needs, as well as designed with specific user-experiences in mind. Now the IT department can refer new users and projects to experienced internal experts.

Second, moving faculty and staff from hard copy paper workflows to digital document management requires a fundamental shift in behavior and a basic level of technical insight. The Center recognized that the end-users would be unable to fully understand the benefits and grasp the new processes on their own — they couldn't teach themselves. To speed adoption of the project, the Center had to ensure the technology they put in place was easy-to-use and intuitive, and that hands-on training programs were a major focus of their efforts.

By scheduling user-group sessions, end-users received hands-on, personal training and an opportunity to provide feedback about the new technology and process, so that they felt empowered and part of the change. This insight could then also be used by the Center to tailor future training sessions and technology projects.

It also created a base of early adopters who could build excitement and support for the project, as well assist other colleagues as they get up to speed, lightening the load on Center staff.

To make sure the Center could handle the training sessions and follow-up support, giving each department its full attention, Tulane rolled out its new services, department by department. For example, the University's Accounts Payable department automated its document workflows first. Once this group had fully adopted the solution, the Center took the feedback from this roll-out into consideration when replicating a similar workflow specific to the needs of academic advisors.

Often the most innovative projects encounter the greatest resistance when they are originally proposed. If you encountered an obstacle like fighting for approval or funding, please provide a summary of the objections you faced and how you overcame them. (In 300 words or less)

Tulane's University has certainly faced its fair share of adversity, and its experience rebuilding after Hurricane Katrina created an organization that continues to focus on doing more with less to spur future growth.

The University has seen firsthand that multiple small improvements can make a big difference and that a large investment does not always equal the best return. As such, the Document Service Center presented the administration with a strategy of incremental improvements that focused more on reallocating existing resources than getting brand new resources. At the same time, the Center highlighted how this reallocation would free up resources for other support tasks that would bring more value to the University. This approach was well-received and helped garner support for the funds needed to execute the optimization strategy.

As the project progressed, the Center kept administrators up-to-date on the early successes to set the stage for additional funding that might be needed.

Measuring Success

Tulane's intent with this project has always been to start by rolling out the new services and automated workflows to individual departments first. The University's Accounts Payable department was the first implementation, followed by Academic Advising. The Center has plans to extend these tools to other workgroups such as human resources and admissions in the near future, with the goal of bringing these services campus-wide within the next few years.

Education is one of the most information-intensive fields on the planet. Tulane, like many other institutions of higher learning, has been challenged in these tough economic times to do more with less. This project set a good example for the rest of the University by building on existing resources and enhancing them with low-cost technology solutions to unlock cost savings and productivity. Tulane expects to share its best practices with other universities across the nation to illustrate how better document management can improve the bottom line.

User Acceptance

When the project was first rolled out, faculty and staff were excited about the potential for these tools to improve their productivity. However, several concerns specific to both time and money needed to be addressed to get started initially:

- How much is the digital conversion going to cost my department?
- How long will it take to convert my old records and bring everything online?
- Is the system easy and dependable enough to help with my everyday work?

That resistance was quickly dispelled by helping the departments prioritize and determining what documents needed to immediately be converted and added to the system to see a strong benefit of changing the way business is done and what documents can be added overtime.

There are 150 end-users in total across Accounts Payable, academic advising and the Center staff. We expect to have more than 400 using these document management tools by the end of the year.

Looking Forward

In 2020, I expect information technology to be much smarter, faster, cheaper and mobile. For example, specific to my work at Tulane, I envision a day not too far in the future where an academic advisor away from their desk and in a conference room across campus could use a netbook or iPhone to securely pull a student's record out of the University's enterprise content management system. Then have the ability to send the document from their phone to the printer in the room. The iPhone could acquire the printer, send the printer path to DocuShare and automate the download to the printer – all within a matter of minutes.

Instant access to the information needed to guide students both in academics and financial situations is the lifeblood of higher education. Our faculty and staff needs to be able to retrieve and share business critical documents in seconds to keep pace with students and achieve university growth targets. Information technology is quickly reaching the tipping point where documents are ubiquitous, available wherever you are – in the office or on the go, whenever you need it – outside of work hours or even going back to decades past, without IT assistance or high costs.

Summary

Having Tulane University's Document Services Center recognized as part of the Computerworld Honors program means a great deal. It's an industry acknowledgement that the best technology projects are not always initiated and implemented within an IT department, but by other business units that recognize how the deployment of smarter technology can improve the way they get work done.

I often read that IT departments are fighting with the rest of the company for resources such as budget for projects, support for process and technology changes and to foster adoption of new tools. But that need not be the case.

Like Tulane, business units can take control of their technology needs and collaborate with the IT department to share expertise and create solutions that are more customized, efficient and cost effective.

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