

Copier Management Program at The University of Alabama

Bill May

Director, Printing Services

The University of Alabama

Tom McLeod

Technology Services Manager, Printing Services

The University of Alabama

ABSTRACT

A campus-wide Copier Management Program, based on a pay per click model, has replaced a disparate, decentralized acquisition process and has saved the University of Alabama (UA) \$658,500 annually. Historically, individual departments specified the equipment and service agreements, often with the influence of the vendors. Prior to the change, the university followed a bid specification process that failed to ensure efficiency or effectiveness. The University bought and leased copiers from multiple vendors, and utilized dozens of brands and models at often dizzying prices.

The process included phases for research, training, implementation, and a procedural review. An initiative developed by the Director of Printing Services and the Vice President for Financial Affairs began with gathering data about copier acquisition and usage on campus. The research indicated significant and inappropriate costs. This data was presented to key administrators, deans and department heads, and a Request For Proposals (RFP) was authorized. The Vice President for Financial Affairs signed the resultant contract on September 30, 2006. University of Alabama Printing Services began administering the contract in partnership with the selected vendor on October 1, 2006. All existing copiers on campus were replaced with new equipment that was specified by departmental needs, and the equipment was networked for printing and reporting. No capital dollars were spent. Hundreds of confusing annual invoices were eliminated. Technical capabilities and service assurances were heightened.

Additional savings continue to accrue as the campus wide average cost per copy has been reduced. There are no overage charges to monitor or maintenance agreements to renew. Color copying capability has been added to nearly 100 campus locations. There were previously less than 10.

Better service to the University community, lowered operating costs, improved quality, enhanced capabilities, and preserved capital budgets are the key results of this 'best practice' of the Copier Management Program at the University of Alabama.

Introduction of the Organization

The University of Alabama is a major, comprehensive, student-centered research university founded in 1831 as Alabama's first public college. Dedicated to excellence in teaching, research and service, we provide a creative, nurturing campus environment where our students can become the best individuals possible, learn from the best and brightest faculty, and make a positive difference in the community, the state, and the world. The University of Alabama is a senior comprehensive doctoral-level institution. Its mission is to advance the intellectual and social condition of the people of the State through quality programs of teaching, research, and service.

The University currently serves over 26,000 students supported by 4,430 faculty and staff on an 840 acre campus located within the city limits of Tuscaloosa, Alabama. It is part of the UA system with other major campuses in Birmingham and Huntsville and outreach locations throughout Alabama. The UA System is governed by the Board of Trustees. Dr. Robert E. Witt, President of The University of Alabama since 2003, has led a renaissance of spirit, excellence, and growth in all phases of University life. Vice presidents lead each university division; Printing Services is a non-subsidized auxiliary enterprise within the Division of Financial Affairs.

Printing Services provides full service design, printing and copying services to the University of Alabama community. Thirty-three full time staff and 10-15 part time students fulfill orders for every academic department, admissions and recruiting, athletics, support services, alumni, University Relations, and individual students, faculty and staff. Resources include two four-color presses, three two-color presses, a full bindery, digital color and black and

white copy service, four professional designers, a signage department, bulk mail processing and a convenience copy center located in the student union building. UA Printing also administers campus-wide lab printing through the Uniprint cost recovery model and the Copier Management Program for the UA campus and System offices.

Statement of the Problem/Initiative

Prior to implementation of the Copier Management Program, there was little institutional concern or control over the acquisition of copiers. The result was that over many years a complex weave of dozens of contracts and agreements of varying lengths, costs, support and renewals existed. Purchases and leases were initiated by individual departments. The decision to buy or lease was frequently dependent more on the ability to attach capital money than actual current need. The copier specifications were often written, or influenced, by the salesperson. It was commonplace for a department with a history of less than 10,000 actual copies per month to purchase a copier rated for 125,000 to 250,000 per month. This was usually associated with a service agreement that “included” the first 50,000 copies per month with an overage charge if the ‘minimum’ copies were exceeded. In many cases, the vendors billed for toner and other parts. This scenario resulted in multiple annual invoices from the vendor for one copier. Accounts Payable handled up to 12 different copier vendors at any given time, and each had a unique contract per copier and multiple invoices at different rates with different expirations, renewal dates and audit trails. Innumerable man-hours were spent reconciling normal invoices and addressing the constant over-billing and invoice inaccuracies.

As part of a new Copier Management Program we sought to:

- eliminate all capital expenditures on copiers that resulted in overpaying on the front end for assets that became valueless and unusable after a few years;
- reduce or eliminate multiple copier vendors who congested offices around campus with the constantly changing array of service technicians and vehicles while exacerbating parking and security issues;
- reduce or eliminate the number of salespeople who regularly diminished the productivity of offices across campus with phone calls and visits;
- establish clear procedures and outcomes in circumstances where vendors did not meet contractual obligations;
- reduce copier downtime;
- maximize the productive potential of the assets by making network printing and scanning available to all users;
- make color copying and printing available and affordable;
- save operational budget dollars overall by reducing the actual cost of copying/printing, and
- provide departments the tools to manage copy expenses.

The overall challenge was to:

- eliminate capital expenditures,
- reduce continuing operating expenses,
- improve quality, service and capabilities and
- meet individual departmental requirements for all copiers at The University of Alabama.

Design

The first step was defining the concept that would address all of the problems and opportunities associated with copiers on the UA campus. A consensus was reached between Dr. Lynda Gilbert, the Vice President for Financial Affairs, and Bill May, the Director of Printing Services. UA would craft an RFP for a single vendor to provide and service all copy machines on campus under a multi-year cost-per-copy contract. May formed an initial implementation team comprised of Judy Voss, Purchasing Manager, Vicki Santina, Purchasing Contract Administrator, Jennifer Patrick, Senior Buyer, and Mike Largin, the Financial Affairs Technology Support Manager. The initial task for the team was to identify the primary program objectives, compose the RFP, evaluate bid responses and initiate the program.

Because the University had a longstanding decentralized approach to copier acquisitions there was little useful information available related to the copier fleet scattered throughout the campus. In fact, there was no database to indicate how many copiers were owned and operated. Additionally there also was no “overall volume” figure.

Data was gathered from two primary sources and cross referenced to establish a basis of data from which reasonable assumptions could be made. An electronic copier survey was designed and sent as an email attachment to all departmental business managers soliciting information. In addition, each vendor under contract with UA was required to submit a list of all equipment located on campus. From these two primary sources of information, the team was able to create a master spreadsheet which revealed a total of 379 monochrome copiers and less than 10 color copiers. Of the existing copiers, it was determined that only 61 were digitally networked.

Capital and operating expenditures were quantified and a target cost per copy price was calculated under which the new model would be viable. In cooperation with staff from the Purchasing and Accounts Payables Departments, contracts, invoices, requisitions, and service agreements were reviewed. The annual average capital expenditure on copy purchases and lease capitalization was determined. Actual copier volumes were compared to their service agreements and other operating expenses to calculate an operating cost-per-copy for each sampled machine. From this range a target cost-per-copy was established.

It was determined that through the combined service contracts for all equipment, UA was purchasing and paying for at least 46,000,000 black and white copies. Volume estimates revealed that only 33,000,000 copies were actually made. This discrepancy contributed to an inflated actual cost of operation when combined with the initial cost of equipment resulting in an overall cost in excess of 3.5 cents per copy. The University was investing an average of \$330,000 in capital on copier acquisitions each year and an additional \$905,000 on related combined annual operating expenses. Clearly, ample financial incentive was present to pursue a new business model for acquiring copies and image files rather than investing in machines that quickly became obsolete.

This information was used within the RFP document to identify seven black and white copier capacity ranges and one color copier range which are distinguished by speed and volume ratings. All equipment was specified to include the options necessary to meet finishing needs of each department. All copiers were required to be networked and scan capable. The successful vendor was to provide equipment, toner, parts, loaners, replacements and on-campus service technicians to every requesting department under a cost-per-copy business model.

Several vendors were then approached to discuss the potential scope of an RFP, service requirements and potential pricing. Their input assured that vendors would be interested in such a model and provided additional important information. The vendors wanted a guaranteed annual minimum, on-site storage space for toner and parts, and at least a five year contract. These and other suggestions were incorporated into the RFP.

An RFP was developed by the purchasing staff which incorporated all of the University's requirements. A mandatory vendor qualification pre-bid conference was conducted which served to identify potential service providers and also to document questions from the vendors. Following the distribution of a formal Q&A reply document to all vendors, the RFP was officially published and posted. Qualified bid responses were received from 7 vendors. As expected, there was a significant variance in the bid-response quotations. The two lowest bidders were substantially lower than our cost-per-copy benchmark. The lowest bidder, Océ/Imagistics was awarded a five year contract with an option of an additional three years at UA's discretion.

Implementation

Immediately following the bid award, a new implementation team was deployed under the direction of the Director of Printing Services. This team included Tom McLeod the newly appointed Manager of Technology Services and Tom Youngbluth the Copy Management Coordinator. With support from the VP for Financial Affairs, the Printing Services team combined the on-campus efforts of numerous cross-divisional university resources and departments including: Transportation Services, Telecommunications, Central Receiving & Property Control, Electrical Maintenance, and the Information Technology Network & Technical

Support groups. Each installation was scheduled and coordinated with designated personnel from these departments.

Surveys were conducted by the team at every location where copiers were to be installed. The information gathered included make, model, serial number, meter readings, and finishing options on the existing copiers. Departmental staff members were asked about their needs, typical uses, and special requests. Physical spaces were measured. Network availability and electrical compatibility was noted. The team then specified the model and options that met departmental needs, ordered electrical and networking as needed and scheduled installation with the vendor.

Based on initial equipment estimates, the vendor pre-ordered an inventory of each copier volume/capacity model. The UA Central Receiving facility provided on-campus warehouse space. This space was used for the duration of the installation phase to configure new copiers to each department's requested specifications. The installation team, which always included a Printing Services employee, was responsible for delivery, initial set-up, and testing of each copier. The vendor provided several qualified trainers who scheduled operator training shortly after the installation of each copier. The vendor also removed existing copiers and transported them to the University's surplus property unit where disposal was coordinated through periodic auctions.

The public auction sales revenue from each copier was returned to a centrally managed revenue account. A depreciation schedule of 20% per annum of initial acquisition cost was applied to every removed copier that was less than five years old. Based on this formula, the Vice President for Financial Affairs refunded that proportional value to every eligible

department. Equipment five years and older was considered fully depreciated. Owners of fully depreciated equipment were thus reimbursed for the actual sale proceeds.

One of the most challenging tasks associated with implementing this program was coordinating the extensive networking requirements. An integral component of the plan was to have all units networked to facilitate remote monthly meter readings and other management objectives. A unique campus sub-net was designated by the Office of Information Technology to accommodate the copier fleet. Three distinct types of networking orders emerged which included: 1) existing networked copiers which had to be V-LAN connected to the new sub-net upon placement of the new copier, 2) installs which had vacant existing network ports available for conversion to the subnet; and 3) locations which had no network connection available. Type 3 required the installation of Cat 5 network cable connections and proved to be the most time consuming. This important part of the project was performed by the UA Telecommunications Department.

At the end of the first year, September 30, 2007, approximately 377 black and white units and 88 color units had been installed. Of these 465 copiers, 447 were configured as networked workgroup printers.

Billing Design

Beginning in November 2006 the management team, in collaboration with the Financial Accounting department, designed a dynamic spreadsheet which allowed monthly uploads into the Banner accounting system. Monthly invoice information provided by the vendor is reconciled by University Printing for each department's usage. The figures are then converted into a monthly charge which shows separate entries on the departmental monthly statement for

the total of both color and black and white copies. The rates charged are variable by the total quantity produced each month, as follows:

Color	Black and White
Less than 1,000 = 7.5 cents each	Less than 20,000 = 2.25 cents each
Between 1,000 – 5,000 = 7 cents each	Over 20,000 = 1.95 cents each
Over 5,000 = 6.5 cents each	

Benefits

This cost structure effectively reduced the cost of black and white copies by nearly 35% and reduced the cost of color prints by 1000% from an average retail cost of 79 cents in the local market. This benefit allowed for the placement of many additional color units throughout campus. As an additional value, black and white prints produced on a color machine are billed at the normal black and white rate.

The University of Alabama has experienced unprecedented growth since this program was implemented two years ago. Student enrollment has increased from 22,000 in the fall of 2006 to more than 26,000 in the fall of 2008. In this time, over 200 new faculty members have been added. Many new offices and academic programs have resulted from this growth, and the demand for office equipment has increased proportionally.

During this same time period, the copier fleet has grown from 369 monochrome units and 10 color units into 425 and 105 respectively for a total of 530 copiers. Of these, 521 are now

networked. Many of these machines also provide fax capability which also reduces cost to the institution. This program results in cost savings which occur in several ways.

- At least \$330,000 in capital investment is saved each year through the complete elimination of copier purchases.
- Administrative overhead has been greatly reduced. Conservative estimates indicate the total cost of conducting a formal bid, issuing a purchase order, processing an invoice, and cutting a vendor check to be \$200. Formerly, each copier required two sets of purchase orders, invoices, and checks in the first year. Separate transactions were required for the initial purchase and for the service contract, and at least one additional transaction was required for the annual service contract. The copier program, through improved process efficiency, enables \$120,000 of administrative value to be redirected into more productive utilization.
- The volume of color copies produced through the program to date is approximately 2.8 million copies. An average savings of at least 10 cents per copy yielded an additional savings of \$280,000 total in two years. This realizes about \$140,000 in annual savings, which is an ultra conservative figure.
- In addition to the above, UA saves ½ cent for every black and white copy. In fiscal 2007 – 2008, volume was 37,700,000 resulting in an annual savings of \$188,500.

SUMMARY OF QUANTIFIABLE ANNUAL SAVINGS	
Elimination of capital expenditures	\$330,000.00
Color copy/print cost savings	\$140,000.00
Black and white copy/print cost reduction	\$188,500.00
TOTAL ANNUAL SAVINGS	\$658,500.00

One cost-saving benefit is taking root much faster than we anticipated. Decision makers in numerous departments and technical support groups have discovered that aging desktop printers and fax machines do not necessarily have to be replaced with a new unit. In many cases, printing is simply re-routed to an existing copier in the same office. In other offices, an appropriate machine provided through the Copier Management Program is placed to handle the printing. Departments no longer spend money purchasing new printers nor the expensive toner and maintenance kits. On this campus, nearly everyone has a desktop computer. Workgroup printer configurations represent a major shift toward a more economical and environmentally friendly approach to printing. Another unanticipated benefit is the utilization of program copiers to replace printers located in all academic and library computer labs. All campus labs are a part of the Uniprint network printing cost recovery program also managed by Printing Services.

It became clear early during the implementation process that a 25 page-per-minute color copier would not have the speed or production capacity to fulfill the need for color printing in some locations. Although this was an obvious oversight on our part in constructing the RFP, rather than re-bid this requirement, we conducted negotiations with Oce/Imagistics. An agreement was quickly reached that provided higher speed color copiers at the established

contract rate. Presently, there are 62 color copiers with a faster operating speed scattered throughout the campus. As noted previously, the affordable cost structure and availability of color equipment with no initial capital investment has resulted in a dramatic increase in the volume of color printing. Departments no longer have to outsource this segment of work and the print quality is exceptionally good.

On-campus service with a mandated response time of two hours or less for service calls is also a major program benefit. There have been documented instances in which problem machines were upgraded with a new unit in the same day in emergency situations. Upgrading equipment is now routine when requested or determined to be necessary. Flexibility such as this is also a significant benefit. Prior to this program, once a machine was purchased UA was stuck with it regardless of reliability or suitability. A department with one or two machines does not have much leverage with a vendor, but an institution with 600 machines from a single vendor has a great deal of leverage.

The most recent benefit was not planned or anticipated. Because of the existing relationship between Printing Services and Oce/Imagistics, all of the digital copier production equipment in the print facility and satellite operations has now been added to the cost-per-copy business model-- at a negotiated lower cost structure. This not only saves the department money, but also provides better on-site service. From a management perspective, we have maximum flexibility because there is no binding contract or long term lease agreement, and we only pay for copies actually produced. We think our version of cost-per-copy is a very good business model and is therefore a "Best Practice"!

Retrospect

This project was recommended and is managed by operational units within the Division of Financial Affairs, and we received feedback that a more active planning role should have been shared with other university divisions. In retrospect, there clearly would have been advantages with this approach, particularly as it relates to the scope of networking requirements. Although the initial implementation team communicated with key financial personnel in every department on campus via email and hardcopy notices announcing the program and soliciting information, it was suggested that additional means of communicating with the campus as a whole should have also occurred. Apparently, some administrators were not informed by their departmental personnel prior to implementation of the program. While we agree in principal, the plan was designed to be efficient so that implementation and savings could be realized quickly.

The RFP document should have included at least two more volume segments for color copiers, but this omission has not resulted in any real problem since our vendor readily agreed to place machines with higher ratings when requested. Additionally, there have been a few areas with exceptional volume requirements that exceeded the scope of the RFP. Again, in these instances, the vendor fully cooperated.

As with any new project, we learned through experience and made process improvements as required. We continue to install new locations each month and work closely with the Oce/Imagistics staff to fulfill a demand that is consistent with the University's growth.