

**2010 SACUBO Best Practices Entry:**

**PacerPrint Program to reduce Student Printing**

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*Abstract: The University of South Carolina Aiken was faced with significantly increasing annual costs to provide printing to the university's 3100 students. The "PacerPrint" program was developed to reduce printing costs and to reduce student printing waste. PacerPrint has far exceeded the university's expectations with annual cost savings of \$30,000 and a reduction in pages printed to one-third of the previous year.*

## **Introduction of the Organization**

The University of South Carolina Aiken (USCA) is a separately accredited four-year, public university of approximately 3100 students and offering undergraduate degree programs as well as three master's degree programs. USCA is one of three “senior” campuses in the University of South Carolina system and is located in Aiken, South Carolina.

Provisioning for information technology (IT) services is centrally managed by the Vice Chancellor for Information Technology (VCIT) and the Computer Services Division. A Campus Technology Committee (CTC), made up from representatives from across the academic and administrative units, and chaired by a faculty member, serves as an advisory committee to the VCIT and assists in developing IT policies and prioritizing IT requests.

## **Statement of the Problem/Initiative**

For years, the University provided free printing for students in the classrooms and computer labs. Although initially the cost for this printing was paid through Computer Services Division or the appropriate department, in 2002, the scheme was changed and student printing was paid from a central fund sourced by a portion of the student technology fees. In addition to the cost of administering this program, there was no incentive for the students to control their printing and the cost for student printing continued to significantly increase every year. Voluntary programs aimed at reducing student printing were tried but did little to stem the increased printing cost. In

addition, many printouts were never picked up from the printer and there was an enormous amount of waste. USCA is participating as a member of the American College and University President's Climate Commitment and is seeking to reduce use of all possible resources.

In 2007, a "pay for print" program was tested within CSD however it was found to be non-responsive to the students' needs. The issue facing the campus was how to provide reliable and timely printing services to the students while reducing both the cost and waste. The program that was developed is called "PacerPrint" and was designed to provide a printing system that encourages responsibility and effectiveness in printing.

## **Design**

"PacerPrint" was developed through software integration of three primary products. The primary software package is Pharos Uniprint. This package integrates with our Microsoft Active Directory implementation for the user/network interface and integrates with Cbord's CS Gold university one-card system to provide debit capabilities via the USC "CarolinaCard".

## **Implementation**

In previous discussions within the CTC in the 2006-2007 timeframe, there had been opposition to imposing any restrictions on student printing. The increasing costs and waste associated in continuing to do "business as usual", as well as a turnover in CTC membership, reduced this opposition. The CTC discussions rapidly changed to "how do we implement" rather than "do we implement". A query to the EDUCAUSE CIO listserv on what products other universities were using identified a product (Pharos Uniprint) that was popular among many universities and was

also compatible with our university “CarolinaCard” system. This information and an implementation budget were proposed to the CTC by CSD. The program and funding was approved in Spring 2008.

During the implementation discussions, it was agreed that some number of free copies were going to be provided each semester to each student. Since one of the primary objectives was to reduce paper waste, we settled on a cost model that rewarded the use of duplex (two sided) printing. Since USCA was not currently using printers capable of duplex printing, the CTC also allocated money to procure duplex printers as well as color printers for the two main campus printing areas (main computer classroom/lab area and the library). To help sell the program to the students, we stressed the additional printing capabilities that “PacerPrint” would provide.

Since we did not have any hard facts on how many pages were being printed by each student per semester, an educated guess on an initial number of free prints was made and a commitment made to adjust this number as necessary.

Students use the “PacerPrint” system to print from all computer classrooms, labs and the Library. When students choose to print in computer labs and classrooms, “PacerPrint” presents a pop-up screen showing the cost of the print job and their available Carolina Cash (printing money available on the CarolinaCard account) balance. They then have the option to print or cancel the job. Once they approve the expenditure, their Carolina Cash account is debited and the print job is printed and available for pickup from the lab or classroom printer.

A free allocation of \$10.00 is applied to the student’s CarolinaCash account each semester they are enrolled. This \$10.00 equates to 111 single-sided pages, or 200 printed pages if they use the

recommended two sided printing. Summer printing allotments are equivalent to 30 single-sided pages during each summer session and 20 single-sided pages during Maymester. They can choose to use their allotment to print in other formats such as color, single-sided or larger paper formats; however, different formats such as color laser printing are more expensive and will use their free printing allotment more quickly.

The per page printing costs to students are as follows:

Two-sided printing (RECOMMENDED)

Black, 8.5" x 11" – \$0.10/front & back

Black, 8.5" x 14" – \$0.13/ front & back

Black, 11" x 17" – \$0.17/ front & back

Single-page printing

Black, 8.5" x 11" – \$0.09/page

Black , 8.5" x 14" – \$0.12/page

Black, 11" x 17" – \$0.15/page

Color, 8.5" x 11" – \$0.75/page

Color, 8.5" x 14" – \$1.00/page

One of the primary concerns was how students would add money to their CarolinaCard account when they ran out of their free copies. As the CarolinaCard system is a University of South Carolina system wide program, a system was already in place where the students could go to a website and add money using a debit/credit card. This money can be used for any CarolinaCard transaction and the balance rolls over to the next semester (the initial \$10 for free printing does not roll over).

To meet those situations where a student may not have access to a credit/debit card, a terminal was procured for the Business Services Office so that students can also add cash to their account. In addition, they can pay per copy for printing in the library, if required.

To ensure acceptance of this program, the faculty, staff and students were involved from the very beginning through their appropriate CTC member representative. Prior to implementation, numerous emails, as well as flyers were mailed to each student explaining the “PacerPrint” program. In addition, an article was published in the school newspaper.

### **Benefits**

The following costs were incurred in implementing the system:

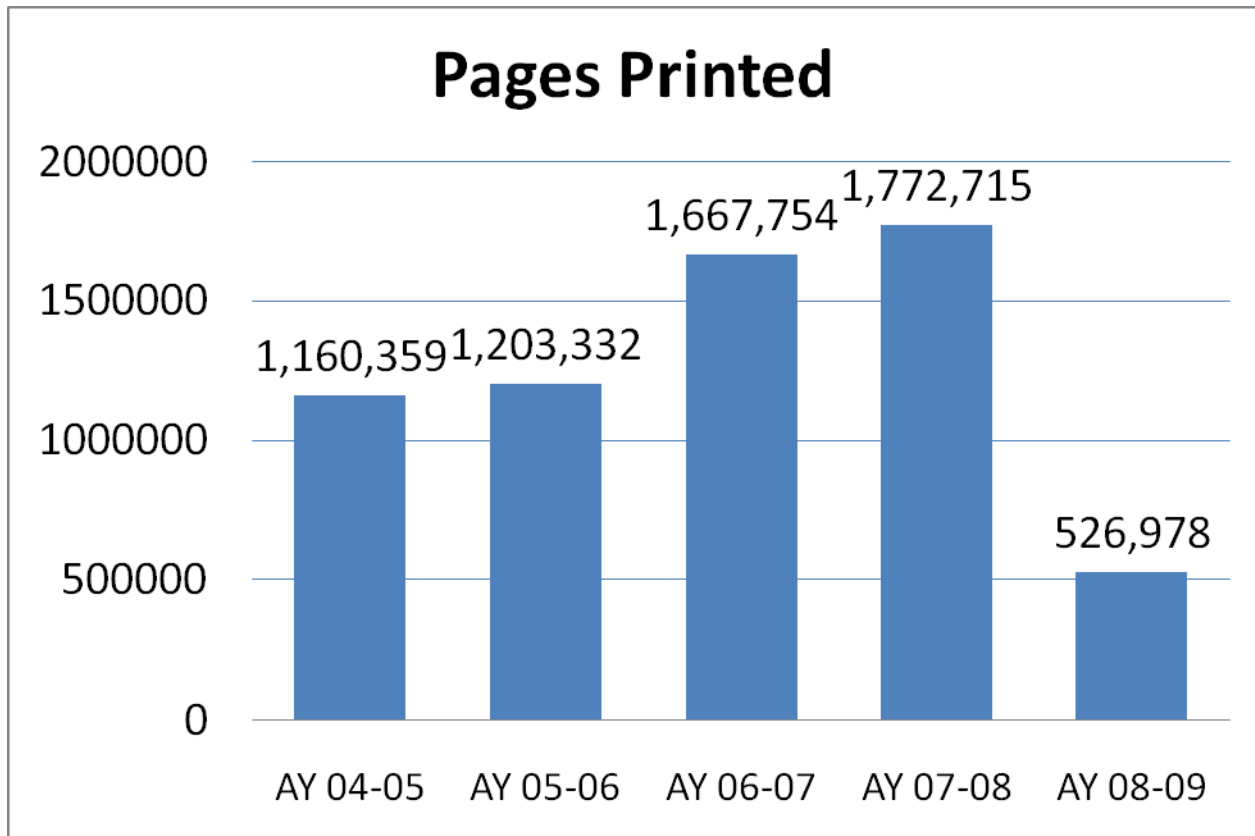
Pharos Uniprint software:	\$23,888
New duplex printers (4):	\$19,838
New color printers:	\$1,924
Business Services Office cash terminal:	\$7,720

Annual Maintenance costs:

Pharos Uniprint:	\$,3095
CBord CS Gold Software:	\$200

**Results:**

After a full year of operation, the PacerPrint program has been a huge success in reducing printing costs and waste. Table one below shows the number of pages printed per academic year before and after “PacerPrint” implementation:



**Paper/Toner Reduction of ≈\$25K**

For the 08-09 year, less than one-third of the pages were printed than in the previous year. These results were spectacular. Although the specifics vary from semester to semester, the number of students who exceeded their free copies was between 10% and 11%. Those that did exceed their free allocation though, exceeded in sufficient quantities to pay for the number of free copies provided to all students. So whereas we were allocating about \$30,000 a year for printing in previous years, for the first year of “PacerPrint” implementation, our annual operating costs were near zero. Of course we did have the initial start up costs, but except for the cash terminal (which can also be used for other CarolinaCard functions) and the Uniprint software, the new printers were items that would have had to have been replaced anyway within a year or two.

This program also fits well with the other university initiatives that we have to become a more “Green” campus as members of the American College and University President’s Climate Committee. The budget savings were also extremely useful in a year where the university had almost 25% of its state appropriations cut due to state revenue shortfalls.

## **Retrospect**

The success of this program has far exceeded our expectations. We did expect the program to reduce waste and cost, but were delighted that it totally paid for itself. Although there was some initial consternation from some students, which prompted the Vice Chancellor for Information Technology to speak at a Student Government Association meeting early in the fall semester, the user friendliness and reliability of the system as well as the fact that almost 90% never exceeded their free quotas calmed most of the fears. Most of the concerns were from returning students who had been used to getting “free” printing. There were very few complaints

from new students since they had not previously experienced the unlimited free printing. The Campus Technology Committee and the Vice Chancellor for Information Technology will continue to monitor the system for issues, however, at this time few changes are anticipated.