

The University of Texas-Pan American

The University of Texas-Pan American is a general academic component of the University of Texas System and the primary institution of higher learning serving the rapidly growing population of the Rio Grande Valley in the southern tip of Texas. This population is 85 percent Hispanic and 58 percent of the institution's students who earn their undergraduate degrees are from the first generation in their families to reach this level of educational attainment. The institution has a Carnegie classification of Master's I.

The University of Texas-Pan American was founded in 1927 as Edinburg College, a two-year institution created by the Edinburg School District. In the 75 years since its inception, the institution has gone through a number of name and mission changes as it has grown and evolved into the university it is today. Enrollment was 11,971 full time equivalent undergraduate and 1,669 graduate students for the Fall 2001 semester. The institution is lead by Dr. Miguel Nevárez, President. The vice president for Business Affairs is Mr. James Langabeer.

Background of the Project

In the fall of 1999, the opportunity to improve process effectiveness in the University's centralized bursar's office was generally recognized, although it was not measured or quantified. Collections of student billings were being processed through SCT's Student

Information System (SIS), but without benefit of cashiering system features to minimize keystrokes by swiping student ID cards, reading bar-coded remittance advices or assigning function keys to perform high-volume transactions quickly. All other collections were being recorded on hand-written receipts and subsequently posted to SCT's Financial Reporting System (FRS) as well as any applicable subledger systems. These subsystems included SCT's Loan Management System (LMS), T2 Systems Incorporated's Power Park program used by the University Police, and a large variety of spreadsheets used at the department level to control collections in such areas as the English Language Institute.

Two efforts to provide comprehensive computerized cashiering support for the bursar's office had foundered on the complexity of the interfaces that would be involved. Vendor proposals were costly for interfacing with the SIS and FRS systems by themselves and offered unclear benefits when the additional supporting subsystems were left out of the proposed applications. Efforts to provide specifications for these additional interfaces proved unsuccessful, and without specifications, vendor proposals obtained did not fix a limit on proposed development costs of including them in the solution.

Process Analysis and its Results

In the face of these obstacles, the University turned to basic process analysis to take the problem apart and identify opportunities to improve effectiveness on a piecemeal basis. Initial efforts focused on the hand-written receipts. Soon it became clear that processing these receipts required a minimum of 11 manual steps to post to FRS. Additional steps were required to post them to any applicable subsystems. Seven FTE's were estimated to be dedicated to these processes. Computer analysis of the receipt transactions recorded in FRS for the previous fiscal year identified the top areas that were generating a great majority of the hand-written receipts. At the same time it became clear that the total number of hand-written receipts was surpassing the number of SIS student billing receipts by several thousand each year. The results are summarized below:

Hand-Written Receipts	<u>Receipts</u>	<u>Percent</u>
• Student Loans	13,923	13.9 %
• Police Department	6,675	6.7 %
• Student Testing/In-Service Teacher Training	5,159	5.2 %
• English Language Institute	4,029	4.0 %
• Receipts to Record Summarized Student Billing	2,641	2.6 %
• Residence Halls	1,893	1.9 %
• Bookstore	1,097	1.1 %
• Others, not individually identified	<u>16,021</u>	<u>16.1 %</u>
Total Manual Receipts	51,438	51.5 %
Total Student Billing Receipts in SIS	<u>48,434</u>	<u>48.5 %</u>
Total Manual and SIS Receipts	99,872	100.0 %

Process Improvement – Phase I

Each of the areas generating large numbers of hand-written receipts was studied. Soon it became apparent that the Police Department's Power Park system, a client server application running under Windows, had cashiering capabilities that could be used in the

bursar's office. Specifically, Power Park was found to include a useable cashiering interface, security features that prevent cashiers and other program users from having access to areas of the program not related to their respective functions, and reports of cashiering activity broken out by tender type for each cashier who has been logged onto the system each day. To take advantage of these capabilities, the cashiers' dumb terminals would need to be replaced with computers running Windows. These computers would use terminal emulation to post SIS student billing transactions and keep a separate session open for posting Police Department receipts into Power Park.

At the same time, it was learned that the English Language Institute was exploring software to replace the spreadsheets it had been using to control its receipts. The specifications for cashiering capabilities described above were added to the requirements for this application, and eventually a system named The Registrar, a client server application by GV Software, was selected. The bursar's office invested \$6,100 in new computers and eliminated the manual receipts in these two areas. The cashiers started posting receipts directly into Power Park and The Registrar systems and using reports summarizing each day's activities to balance their cash drawers and prepare summary hand-written receipts for recording the activity on FRS.

Replacing the bursar's office dumb terminals with computers had an additional benefit in the student loan area. The hand-written receipts produced in the bursar's office for this area had a level of errors that was of concern to the student loan office. As long as the receipts were being processed manually, the student loan office had ample opportunity to

identify and address the errors, but the question arose as to how these errors would be detected if the bursar's office started posting directly to the LMS system. However, as soon as the bursar's office cashiers had computer terminals to work with, they learned to eliminate the errors. They achieved this improvement by keeping an LMS session open under terminal emulation so they could easily verify borrower and loan ID information when they prepared hand-written student loan receipts. While technically they had access to this information with their dumb terminals, it had been a cumbersome process to log out of SIS and into LMS to check the data and then switch back again if the next person in line had a student billing payment to make.

Process Improvement – Phase II

While the improvements achieved under Phase I were positive, their real significance was to pave the way for the comprehensive cashiering solution which the University has been searching for since the beginning. They did so by providing a simple, cost-effective solution for integrating Windows-based departmental subsystems, such those in the Police Department and English Language Institute, with the bursar's office. With this solution identified, attention could now be turned to integrating a cashiering system with SCT's SIS, FRS and LMS systems that process the majority of the transactions. Vendors had already shown the capacity to integrate with SIS and FRS. A specification for integrating with LMS was now needed. At the current time, this specification is well advanced, and the initial draft of a request for proposals has been prepared. Soon the real work of Phase II can begin, and its long awaited benefits in labor savings and improved service to students and others who make payments to the University, attained.