

On Line Parking Permit Distribution

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Abstract

The method by which parking permits were distributed at the Florida State University was reviewed and deemed to be inefficient and not customer-service oriented. The decision was made in January 2004 to install an on-line permit ordering and distribution process. The goal was to eliminate the need for a customer to wait in long lines, during limited business hours, to obtain a parking permit, while all other university business could be conducted on-line.

Introduction of the Organization

The Florida State University is a public institution of higher education, providing opportunities for Bachelor, Master, PhD and Professional degrees. The average annual enrollment is approximately 35,000. There are slightly over 5000 employees. Every registered student is required to pay a per-credit-hour Transportation Access Fee. (Currently, the fee is \$4.90/hour) The fee is used by the Office of Parking & Transportation Services to fund parking lot and parking garage construction and maintenance projects. A portion of the fee is also used to fund bus services on campus, as well as free city bus service for registered students. In addition to being given access to city and campus bus service, the fee allows students to obtain a parking permit at no additional charge. For the 2003-2004 academic year, 30,631 students obtained a parking permit. During that same year, 420 employees obtained an annual parking permit. The remaining employees who park a vehicle on campus utilize a non-expiring type of permit, paid for on an ongoing basis through payroll deduction.

Statement of the Problem/Initiative

The 30,631 students and 420 employees who obtained parking permits for the 2003-2004 academic year had to visit the university's cashiering office to pick up the permit. That office is open Monday through Friday from 8:30 a.m. until 4:30 p.m. The combination of large numbers of customers and limited business hours created long lines in which customers had to wait to receive their permit. This was deemed to be less than efficient and inconvenient to customers, especially since most other student-related university business could be transacted online. (Registration, Financial Aid, Fee Payment, Order books) This situation needed to be addressed and services needed improvement.

In addition to the efficiency issue and the customer service matter, the Controller's office assessed Parking & Transportation Services in excess of \$100,000 annually for their cashiering role in distributing parking permits.

Design

The methodology used to develop our best practice initiative began with discussions between Weldon, Williams & Lick, Inc., a permit-printing company and T2Systems, the software company that designed PowerPark®, our parking management data system. The discussions were to determine if Florida State University would be able to install a method by which customers could order their permit online and receive the permit via US Postal Services, direct from the printing company. It was decided by all three parties that the method was possible, and if successful, would lead to better customer service, more efficient practices, elimination of permit inventory at the university and overall cost savings for the Parking & Transportation department.

Additional personnel were not required, however, the collaborative efforts between our computer technical support personnel and T2Systems tech support personnel became more enhanced and involved than ever before. Consideration must be given to this aspect when organizations decide to pursue this operation. The time devoted to this project by tech support was immense. The electronic systems solutions involved conversations with representatives from the University's Academic and Computing Network Services (ACNS) department, the Bursar's technical staff and the Registrar's technical staff. The ACNS department was instrumental in assisting with issues related to secure log-in using social security numbers and verification of customers who log-in against the schools existing student and employee database. The Bursar's office was involved to the extent that a method of billing employees for their permit orders had to be developed. The Registrar's office was involved with adding links on university web pages that would lead customers to the Parking & Transportation web page where they could log-in and order a permit.

The capital equipment expenses involved in this operation included a one-time purchase of a software module that would enhance our current database management software. The software module was \$14,995. We had the option to develop our own interactive web site to facilitate online orders or have T2 build the system for an additional \$12,000. We opted to have T2 build the web site to make sure it was a seamless operation between our parking database software and the online ordering system.

The recurring expense associated with what is called Permit Direct® is the per-transaction fee paid to T2Systems. As the number of transactions increases, the fee per order drops. Florida State University is currently paying \$1.95 per transaction.

A fixed cost associated with permit distribution is the annual expense of having permits manufactured.

Implementation

The planning and development process began in January of 2004 and the final product was made available online on August 16th, 2004. Eight months was ample time to implement the required changes. Initially, weekly telephone meetings between T2 technicians and our support staff consisted of describing the permit categories available at FSU and the logic surrounding “who” can have “which type” of permit. These logistical issues included laying out the path, or sequence of events, that would take place in order to completely fulfill a permit request. Subsequent telephone meetings were progress reports and Q&A sessions.

The theoretical development of how the system would operate progressed smoothly. One issue an organization must be cautious of is the coordination between various departments within that organization. For example, Parking Services technical staff knew there was a need to acquire the university’s most recent registration data, however, obtaining that data was easier said than done. Likewise, importing bursar data that displayed who was assessed a Transportation Access Fee took a fair amount of time. The individuals responsible for those types of import/export file building projects had a multitude of other university projects, so 100% of their time was not

devoted to our requests. Consideration must be given to these types of scenarios when implementing an online permit distribution program.

One other issue of note is the web page design elements. For instance, the “address” field provided to the customer is not large enough for them to include items such as “avenue”, or an apartment number. This discovery was made after the system went live and envelopes were being returned for insufficient address. However, the mailing envelopes were pre-printed with the Parking Services address as the return address. This allowed staff the ability to look up the customer whose envelope was returned to our office and personally arrange pick-up or delivery of the envelope with permit within.

At the same time planning and development was occurring, permits were being manufactured and stuffed into envelopes. The printing company, Weldon, Williams & Lick, was responsible for labeling each envelope with a bar code, containing the permit number within the envelope. The inventory of permits is stored at the printers, never having to be delivered to our campus.

Once the program was written and installed, a week of testing took place. The live database was copied so as to create a testing database. T2Systems was given access to the Parking database server so that their programs could be loaded. One week of testing concluded with successful results. A student could now login to a secure web site, interactively order a parking permit, update their vehicle information, license plate information and address and receive their permit within three business days. The initial log-in, using social security number and last name, would be verified by the system and the appropriate menu of permits available to the customer would

be displayed. The appropriate menu is determined by the status of the person logging in. The customer can select the permit of his choice from his available options. The order is received (in real time) by Weldon, Williams & Lick and fulfilled by applying a mailing label to a pre-stuffed envelope, scanning the label to load the permit number into the customers record, then finally, mailing that envelope. The data is returned to our server, again, in real time, for the purpose of updating our Parking Database with “who” received “what” permit. The shipping information is also recorded so that the Parking Services office can track the process of an online order.

Benefits

The benefits of the successful implementation of Permit Direct ® are, recurring cost savings, better customer service and more efficient and effective permit distribution.

An annual per-transaction fee of \$1.95 will replace the \$100,000 expense of paying the Controller’s cashier office. Last year, 30,631 student permits would have equated to \$59,730.45 in transaction fees. That is a savings of over \$40,000 to Parking Services every year. The additional ‘hidden costs’ have been eliminated as well: those that are associated with having staff perform functions that are now automated. For example, loading data on a daily basis, tracking who received which permit number, keeping track of permit inventory and similar functions.

In addition to financial savings, the quality of customer service has increased to the point where customers can now shop 24 hours a day, 7 days a week, from the comfort of their own PC, for a

parking permit. This process has eliminated the need for customers to stand in lines during limited hours for a permit.

Also, the automated process has eliminated room for error in permit distribution. In the past, humans could and would, make mistakes when issuing permits. At times, students and non-employees would mistakenly obtain employee permits. This type of error has been eliminated because the logic of the programming will only allow a person to select from the permits he is eligible to receive. This has substantially eliminated the need for Parking Services staff to manually track down the errors and correct them.

Retrospect

In retrospect, it would have been a more comfortable transition if the student and employee data import process had begun sooner, as well as the test database. A longer testing period, for example two weeks versus one week, would have meant less last minute tweaking of the system. Tweaking was mostly related to the web site design, the fields available to customers and the appearance of those fields. One major item of note that was not discovered by simply testing was a 'bug' in the Oracle database server that slowed the online process to a crawl and consumed the CPU usage. The T2Systems technical support worked together with our technical support for 24 hours until the bug was found and corrected. Subsequent to that, the CPU ran efficiently and the online order process took a matter of seconds. It would behoove any organization to allow ample testing and to consider load testing, to be sure the system can do what it is supposed to when put under load.