

Best Practice - Georgia Tech Parking Registration: from paper to real time
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Abstract

Working toward paperless operations, Georgia Tech Parking and Transportation streamlined its process from manually accepting applications, assigning spaces and collecting registration fees to a fully electronic process. Registration and assignments are performed electronically. The Bursar's Office collects and processes parking fees in the same manner as students' tuition.

Payroll deductions handle faculty and staff parking.

No more handling of paper applications, paper waiting lists or paper money. The transactions perform seamlessly – interfacing from one system to another.

From April through June, students, faculty and staff register their parking site selections on-line.

In July, the parking management system analyzes requests based on priority (faculty/staff, graduate student, undergraduate credit hours) and status (renewal, new request). The program interfaces with both the employee human resources' system (People Soft) and the student information system (Banner), submitting data onto the Bursar's accounts for students and payroll accounts for staff.

With approximately 3,000 more requests for parking than spaces available, the system manages wait lists for 43 different parking lots and six choices per person, assigning parking as availability is determined.

The system also manages carpools and citations and unpaid citations are transferred to the Bursar's office if unpaid after 30 days.

Introduction of the Organization

The Georgia Institute of Technology is a public research university with 330 acres in midtown Atlanta, a campus in Lorraine, France and a regional engineering program in southeast Georgia. With more than 700 full-time instructional faculty and a fall 2002 enrollment of 16,480, undergraduate and graduate students receive a focused, technologically based education.

Undergraduate and graduate degrees are offered in the Colleges of Architecture, Engineering, Sciences, Computing, Management, and the Ivan Allen College of Liberal Arts. Students learn from world-class teachers and scholars working at the frontiers of science and technology. Georgia Tech researchers are developing new vaccines and cures for diseases; designing sophisticated new prosthetic limbs for land mine victims; studying development and transportation patterns to improve regional air quality; and providing policy leadership to reduce the global threat posed by weapons of mass destruction.

The Institute consistently ranks among *U.S. News & World Report's* top ten public universities in the United States. In a world that increasingly turns to technology for solutions, Georgia Tech is using innovative teaching and advanced research to define the technological university of the 21st century.

The university is a national and international leader in scientific and technological research and education, receiving more than \$237 million in research awards in fiscal 2001. In 2001, Georgia Tech helped attract more than \$41.8 million in new capital investment and helped create or save 662 jobs statewide.

Statement of the Problem/Initiative

Georgia Tech parking was a challenge.

- There were approximately 3,000 more people seeking parking as there were spaces to assign.
- There was incomplete data in an antiquated management information system (filing cabinets packed with paper registration forms crammed in A-Z files without the benefit of alphabetizing. All the A's were in one file and so forth).
- There were no real numbers of parking permits issued per lot.
- At the beginning of the fall 1998 semester, the paper-administered program bottomed out when thousands of students stood in line for more than nine hours. At the end of the day, some students had received parking permits; some had not. With students still standing in line, the Parking and Transportation Office closed at its routine 5 p.m.

Georgia Tech needed a paperless, real time parking management program to:

- satisfy its customers,
- track permits, citations, appeals and special event parking,
- manage waiting lists for more than 40 campus parking lots,
- collect payments,
- maintain an accurate database for web registration, and
- interface with students' and employees' accounts.

Design

A committee of personnel from Parking and Transportation, Auxiliary Services, the Office of Information Technology and the Office of Organizational Development formed, meeting weekly, analyzing and detailing goals.

To make sure students were satisfied with the new program, committee representatives met with the Student Government Association. It was agreed that an on-line system would be in place by fall 2000.

The team decided on three goals:

1. Purchase and implement a new Parking Management Information system.
2. Design and implement a web-based registration system with no lines.
3. Interface the web-based registration and campus data sources into the Parking Management Information System to create a totally electronic registration and payment process.

There was no workable manual process in place, and that was the first obstacle the committee approached. The process designed established a timeline, obtained data from campus sources, provided confirmation of application receipt, assigned permits based on a priority (staff, students, renewals, changes, new requests) and eliminated lines.

Year one the process would be a mail-in program; on-line registration would be implemented in year two.

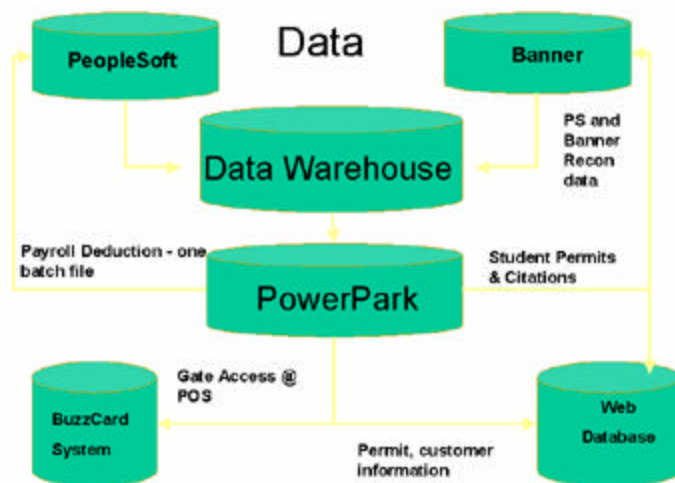
Simultaneously, while the mail-in system was underway, the planning team researched parking management programs.

In 30 days, Georgia Tech determined software specifications, identified and visited vendors, conducted a site visit, created a sole source letter, prepared the request for purchase and received approval from the Board of Regents.

The planning team selected T2 Systems PowerPark Software.

Georgia Tech's Office of Information Technology designed interfaces that:

- provided data to PowerPark from campus data sources, PeopleSoft and Banner
- allowed automatic permit payment from PowerPark to the Bursar's Office
- transferred automatically overdue citations from PowerPark to the Bursar's Office
- created web registration
- accessed PeopleSoft for payroll deduction



Implementation

The mail-in system was labor-intensive and lengthy but necessary to build the database needed to populate the parking management software program. Six full-time employees worked on the process five months.

Working at a location separate from the Parking and Transportation Office, allowing single-focus concentration, the employees mailed registration forms to all eligible students, faculty and staff. The students and employees returned the paper forms with payments. The permits were then mailed to the campus addresses and post office boxes.

The approximate cost, including the temporary full-time employees, was \$200,000.

The on-line system began with one of the shortest implementation periods for T2 Systems on record. Tech was ready to go in just four months.

Posters, bulletin boards, advertisements, e-mail and web announcements notified everyone when to begin on-line parking registration. Since the system was priority-based, there was no advantage to registering on the first day or the last.

Between April 15 and June 30, students, faculty and staff logged onto the Parking and Transportation web site and selected up to three parking lot preferences (increased to six in 2002).

When the registration deadline arrived, the parking system used the choices and the priority system to assign people to parking lots.

At the same time, the system produced and managed wait lists for each of the 43 parking lots.

Fast and efficient, two temporary employees stuffed permits in envelopes. Staff and faculty received their permits in inter-office mail. Students collected their permits from the Student Center and from a tented area outside the Parking and Transportation Office over a three-day period. There were no lines.

Benefits

A true win-win situation, Georgia Tech's parking registration program, now in its third year, benefits customers and parking personnel.

Customer service has gone from "I don't know" to "just a minute; let me check the status of your request." The database is on every computer in the parking office. Anyone can verify information including wait list positions. Students may check their own status from any computer.

Personnel are happier too. Disgruntled, borderline employees have become some of the best in Auxiliary Services, earning employee of the month awards.

The filing cabinets have been given away. The information listed on the thousands of paper applications is now stored in the database. If changes occur in a student's or employee's account, the parking information is updated effortlessly from system to system.

Internet access is all that is necessary for registration; eligible personnel may log on to the system from anywhere in the world. International and out-of-state students may apply without being on campus.

Even with hardware and software purchases and increased enforcement personnel, the on-line cost was comparable to that spent on the mail-in system (\$200,000), and time-saving is tremendous.

People are being transferred quickly from wait lists to parking spaces. By mid-semester this year, 2,500 positions were transferred to parking spaces and continual transfers occur throughout the year.

Retrospect

Because Georgia Tech Parking and Transportation did not have a priority system nor was there necessary data in place, the mail-in program was important to create both processes. Georgia Tech would have preferred to go directly to the on-line system, omitting the mail-in program, but it wasn't possible and the time-consuming manual process omitted lines and improved customer satisfaction in the short run.