

Texas A&M University

Managing Growth

At a Glance



Texas A&M University is located in College Station, about 100 miles north of Houston, Texas. As one of the state's largest universities with more than 49,000 students and 10,000 staff and faculty, demand on transportation and parking facilities is stressed every day. To accommodate on-campus parking for students and faculty, five garages were built, supplementing 10 gate controlled surface lots, with a combined total of more than 10,000 spaces. Access control to these new facilities needed to be smooth, avoiding additional choke points, and easy to manage.

Pioneer: Early Adopter of Technology

With a history as a research intensive university, it is not surprising that Texas A&M was an early adopter of RFID technology back in the 1990s.

They developed an access control system which

Goal:

Replace legacy, home grown RFID system with robust, commercially available technology, maintaining convenience of hands-free operation

Scope:

Texas A&M University has 49,000 students, supported by more than 10,000 faculty and staff

Solution:

Implementation of TransCore's RFID-based automatic vehicle identification (AVI) parking and access control system, including Window Sticker Tags

Results:

Throughput improved by more than 50% at peak hours over old proximity system, convenience enhanced. Established solid platform for growth and new applications

integrated hand held magstripe cards and hands-free RFID proximity (~18 inches read range) technology, as well as other types of data inputs.

The hands-free system was used primarily by faculty and staff to gain convenient access to parking facilities, including selected surface lots.

By 2003, it became apparent a new RFID technology platform was required, one which was commercially available, added long-range performance, and easier to maintain. TransCore, also a pioneer in RFID technology with a pedigree that dates back to the development of RFID at Los Alamos Laboratories, was selected to provide automatic vehicle identification (AVI) systems in the new West Campus parking garage, with a capacity of 3,700 spaces.

The plan called for 18 TransCore SmartPass® readers

to be installed in close quarters. It was important that ProTech Access, the system integrator, was able to capitalize on the flexibility of the readers to minimize potential interference.

Milestones:

- 2003 – West Campus Garage
- 2007 - Initiated RFID expansion plan, starting with the University Center Garage
- 2008 – Installed AVI at larger surface lots and in the Northside Garage
- Jan 2010 – Central Campus Garage

Texas A&M has installed 58 TransCore readers, which is one of the largest single campus implementations.

“The TransCore system has enabled system growth while maintaining our commitment to enhancing convenience, throughput, and security.”

Peter Lange, Executive Director,
Transportation Services

Flexibility: Interoperability Benefits

One of the crucial factors of selecting TransCore technology was that it was compatible and interoperable with regional toll systems in Houston, Austin, and Dallas. This allows the Texas A&M system to register and utilize personal toll tags for access control, thus reducing costs. More than 8 million toll tags are currently used within the state. Currently 3,500 TransCore tags are registered in the system, with 25% sourced from the regional toll systems.

Adding to flexibility, students and staff may use the TransCore tags or their magstripe cards (either Student ID or Parking permit) for parking facility access. The common control system can handle both Wiegand or ASCII data-formatted tags, and other inputs. The system is flexible and can easily be

expanded to accommodate the growth as more people become aware of the benefits of hands-free access:

- Convenience (no fumbling for ID card)
- Enhanced security (windows stay up)
- Improved throughput more than 50%

Forward Looking: Applications Planned



Texas A&M has implemented a secure street program on campus. University busses and staff vehicles have exclusive RFID gated access to the street where students connect with campus transportation. This minimizes congestion and avoids delays to published schedules. The program will be expanded to additional sites and include up to 10 gate/reader lanes.

Analytics: Measuring performance is crucial. The system in place will enable analysis of the parking facilities: creation of usage profiles, time of day analysis, and capturing throughput measurements. This will allow Texas A&M to maximize current resources and provide a picture of future growth requirements.

ProTech Access, a TransCore dealer located in Houston has implemented the RFID technology at Texas A&M. They specialize in high density reader installations throughout the Southwest.