naccu
Connecting Campus Identification
& Transaction System Professionals

CARD TECH PROGRAM
HIGHLIGHT

A NACCU Technology Research Committee initiative

Duke University

Summary

Located in Durham, NC, Duke University was created in 1924 by James Buchanan Duke as a memorial to his father, Washington Duke. The university is comprised of three campuses: East Campus, the original Durham campus that now houses first year students, West Campus known for its stately Gothic architecture and Duke Chapel, and Central Campus, which provides housing, recreational and social facilities.

Duke University is regarded as one of America's leading research universities. Its 10 graduate and professional schools are among the leaders in their fields, and the university's health system combines clinical care, research and education. Duke Hospital, Duke Regional, and Duke Raleigh make up the main Hospital System. Duke is active internationally through Duke Kunshan University in China, the Duke-NUS Graduate Medical School in Singapore and numerous research and education programs across the globe.

FTE, Faculty/Staff and Alumni: Duke University enrollment includes 6,900 undergraduates and 8,900 graduate and professional students. Duke employs approximately 40,000 faculty and staff: 10K on the university side and 30K on the Health Systems side. Active alumni total approximately 168,000.

Organizational Division: DukeCard, established in 1984, is one of the country's first one-card systems. DukeCard began as a member of the Auxiliary Services Department but moved to the Office of Information Technology (OIT) in 2010.

Card Office FTEs and IT Support: There are 12 FTEs dedicated to the DukeCard team focused on customer service, development, infrastructure, program management and system administration. Three areas of OIT oversee these major components that then roll up to a Product Owner for DukeCard. DukeCard receives support from other OIT teams such as Identity Management, Database Administration and Field Support.

Program Tech Specs & Services

DukeCard has been a Blackboard user since its inception and as the first customer (Harco, AT&T and now Blackboard). Our Blackboard system is separated into two identical systems: one for Access Control and one for Financial. Card production is done using Vision Database Systems IDMS product.

DukeCard services include access control, mobile credential, Wi-Fi locks, vending, laundry, copy, printing, events, POS (stored value/debit, board, and events), value transfer stations and Recreation Center membership support. Third party integrations include SAP, PeopleSoft, Pharos, Micros, Agilysis, Innosoft, Sequoia Retail Systems (now Blackboard) for Quadpoint and SCS/PCOS as well as Duke's Identity Management System. The DukeCard currently supports legacy magnetic swipe, MiFare DESFire, MiFare Classic, Barcode and Proximity (health system only) card technologies.

Challenges

Our biggest challenges are predicated on how new technologies are influencing cardholder behavior:

- Increased demand for credit card acceptance and the means to provide it may mean a decline in Flexible Spending accounts.

- Card production may be impacted by the deployment of mobile credentials.

- Physical card vs Mobile credential poses student policy and security policy challenges.

Multiple credentials create new challenges of preventing misuse such as a person from using the smart device "here" while someone else uses their physical card "over there". The cost to support both contactless and mobile campus technologies is not cheap yet the need to do so is a necessity. It is likely we will need to identify new revenue sources. We also need our third-party systems that use the credential to adopt secure transaction concepts: mobile or contactless card.

Five-Year Plan

DukeCard has undergone major changes over the past 3 years. After going 27 years strong on the Blackboard OPTIM platform, an RFP was issued and Blackboard was retained as the Campus Card solution. A "best of breed" model was established where Access Control, Financial/POS and card production are all standalone systems. There are two Blackboard Transact systems separating our physical Access Control system from our Financial system. Card production moved onto a Vision Database Systems IDMS product. Duke Identity Management systems (IdM) are the database of record that feed each of these systems in near real-time, sending/receiving data to/from each of these systems the cardholder data and information needed; thus, keeping the campus card one card feeling.

DukeCard standardized on MiFare DESFire as the contactless (NFC) technology which will take us into the future. The "legacy" magnetic stripe card is still accepted for certain conferences, camp programs and affiliated sponsored guests but is diminishing in footprint. Having the NFC technology in place quickly allowed us to begin refreshing all Blackboard hardware and to employ Assa Abloy WIFI locks in student residence halls.

Most recently, we engaged in a project with Apple, Blackboard and ASSA Abloy to bring us the Mobile Credential – an Apple (iOS) "Card in Wallet" credential. With the recent release of Blackboard's eAccounts, DukeCard now offers an Android mobile credential offering. We are in a multiple-credential world in which our policies, procedures and guidelines all need to be updated to reflect the shift.

Analysis of data has never been more in demand. Tools to allow security teams and administrators to "Tap, Display, or Capture" the Mobile DukeCard are currently needed to avoid privacy and security concerns. Where else can Mobile take us: Athletic tickets, parking passes, visitor or temp card issuance? Can you see decision-based access based on your proximity or geofencing?

Duke University
Durham, NC 27708