Changing Times: Apple Wallet

Jeanine Brooks

THE UNIVERSITY OF ALABAMA®
• Founded 1831
  • Alabama’s oldest public university
  • Senior comprehensive doctoral level institution
  • 600+ National Merit Scholars enrolled
  • Produced 16 Rhodes Scholars
  • 17 NCAA Football National Championships
• Student enrollment 38,392
  • 41% in-state, 56% out-of-state, 3% international
• 6,825 Faculty/Staff
• Located in Tuscaloosa, AL
  • City Population 95,000
  • County Population 200,000
• Enterprise Operations
• 10 FTE’s, 2-3 Students
• Campus Service Center
• Campus enterprise level system
  • 8.4 million annual transactions
  • $22 million annual debit account sales
  • 9000 student meal plans
  • 69,114 active cardholders
  • 80+ off campus merchants
  • 600+ readers
  • 7 TIA, 1 API
  • Contract IT Services (1.5 FTE)
Getting Started
SGA resolution requesting “Digitizing Student Action Card” for mobile phone access
The Process Begins: Project Description

<table>
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<tr>
<th>For Action Card to <strong>adopt leading industry credential standards</strong> for secure transactions utilizing a <strong>Near Field Communication (NFC)</strong> chip plus replace current CWID magnetic stripe encoding with an International Organization For Standardization/ <strong>Issuer Identification Number (ISO/IIN)</strong> cardholder number scheme.</th>
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<tbody>
<tr>
<td><strong>Why?</strong></td>
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<td>• Protect the campus-wide credential standard</td>
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<td>• Ensure secure customer transactions</td>
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<td>• Establish infrastructure for future credential usage</td>
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<td>• Student demand for “tap” and mobile options</td>
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The Process Begins: Project Description

Goals

• Retain UA’s one credential standard
• Implement leading edge secure technology
• Seamless chip/magnetic stripe compatibility with other authorized campus systems and devices utilizing the campus card

Project Drivers and Benefits

• Meet industry standards for secure transactions
• Retain a campus-wide credential standard
• Meet student technology and security expectations
• Prepare campus infrastructure for evolution in credential formats
• Protect UA’s campus-wide ID numbers
• Meet expectations as a “progressive transformer”
Moving Forward
- American National Standard Institute (ANSI)
- Issues Identification Number Application (IIN)
- 8-digit fixed length IIN assigned

- Near Field Communications Chip Technology (NFC)
- Primary: MIFARE® DESFire® EV1
- Native State

- Primary Account Number (PAN)
  - IIN + Card # + Encryption Digit=16 digits
  - New Card Design

- Encryption Standard
  - UA Bb encryption key
  - Single encryption credential
Planning for Multiple Credential Technology

“Prior” Card

NEW ACTCard in Apple Wallet - iPhone

New NFC Card

NEW ACTCard in Apple Wallet - Watch
Unified Credential: 3 new credential types introduced to campus Fall 2018
Implementation Strategy

Project Proposal
For UA Administration on technology solutions, strategic path, challenges

Unknown Card Usage
Identify to prevent service disruptions

Proof of Concept
Identify credential standards, verify card reader solutions, verify 3rd party integrations, determine infrastructure costs

Funding
Determine funding resources (R&R, auxiliary/central funded, 3rd party contracts), contingency funds

Project Approval
Administrative/Board approval to implement
## Implementation: Primary Service Considerations

- Library
- Vending
- Access Control
- Events (labs, academic and student life)
- Laundry
- Card Production
- Bama Dining registers
- Athletic events and concessions
- Off-Campus merchants
- iValidate iPod/iPad readers
- 3rd party systems
  - Print
  - Bookstore
  - Recreation
  - Mobile Ordering
Implementation:
Primary Technology Considerations

- IT Project Support
- ISO pull-from-pool process
- Imports-updates for ISO#
- Build crosswalks between ISO# and CWID as needed by campus departments
- Data analysis
- Reporting
- Create secure process for cardholders to access ISO# for mobile ordering options
- Create link to 3rd party access control system for provisioning
- Monitoring scripts
Progressive Transformation:
ACTCard in Apple Wallet
Implementation:
Administrative Considerations

• Create a project schedule
• Mobile app provisioning services
• Payment Gateway specifications
• Establish criteria for new cardholder application fields
• Update Terms and Conditions
• Create customer training materials
• Create a marketing/training plan for campus community
• Design
  • Wallet pass
  • Mobile provisioning app elements
  • Website additions
  • Marketing for social media, digital, print, in-person
Implementation: Administrative Considerations

- Proof of concept and reader updates
  - Bb NFC readers
  - 3rd party systems
    - Work with vendors on solutions and testing
- Mobile encryption keys
- Identify reader as mobile card enabled
- Create and implement vendor/cashier training plan
- Reader mapping
Implementation: Information Technology Considerations

- Card system upgrade
- Provisioning app
- Dual Authentication (DUO)
- Scripts review
- Create monitoring scripts
  - Provisioning to 3rd party systems, agent services
- Criteria and imports for new provisioning fields
- Reporting
  - provisioning, demographics, use case usage
- 3rd party access control system
  - Provisioning script from transaction system for mobile card life cycle management
  - Door mapping
Tracking Growth: ACTCard in Apple Wallet

ACTCard in Apple Wallet Provisions: October 2, 2018 – March 27, 2019

Weekly Provisioned Devices

- Week 1
- Week 3
- Week 5
- Week 7
- Week 9
- Week 11
- Week 13
- Week 15
- Week 17
- Week 19
- Week 21
- Week 23
- Week 25

Total Provisioned Devices

- Week 1
- Week 3
- Week 5
- Week 7
- Week 9
- Week 11
- Week 13
- Week 15
- Week 17
- Week 19
- Week 21
- Week 23
- Week 25
Tracking Demographics: ACTCard in Apple Wallet

iOS Provisions – By Device Type
- Apple Watch: 12%
- Apple iPhone: 88%

iOS Provisions – By Student Residence Type
- On Campus Residents: 33%
- Off Campus Residents: 67%
Tracking Demographics: ACTCard in Apple Wallet

iOS Provisions by Student Year in School

- Freshman
- Sophomore
- Junior
- Senior
- Other
- Graduate
Implementation:
Communication Examples

Website: actcard@ua.edu
Social Media: @Action Card
Questions?

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