The University of Arizona
CatCard Office
The New Cloud One Card Solution
HOW WE DID IT
Who we are:

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Goal of this presentation

Implementation of a cloud based system

• Preparations & Customizations Data Model
• Testing
• Go Live
• Lessons Learned
U of A

- 42,000 students
- CatCard
  - Keyless Access
  - Mealplan
  - Library
  - Sporting Event Access
  - Exam ID
  - Parking
  - Recreation Center
Card Technology

- 3 Track Mag Stripe
- DesFire EV1 8K Smart Chip (AES/3DES)
- Hologram Laminate
- CatCard Owns Its Own Smart Keys used to encode the card.
Reasons for a new system

- Current system is old, obsolete 1998 technology
- Homegrown complex integration internal systems (depending on 1 person)
- IT Support within UofA
- Manual Updating
- Not sustainable and cost effective
Starting points new system (UofA specs for new system)

- Inline smart chip & mag stripe encoding with existing Zebra ZXP9 printers
- Full integration with other systems + data distribution
- Incorporate & management of existing UofA Desfire keys
- Option of opening smart chip to vendors
- Capability to integrate fingerprint base access
- Cloud Based
Why choose the Cloud

- State of the Art Technology
- Cloud based is secure
- Purchase Software as a Service (SaaS)
- No local install + no investment in licenses
- Support in customizing software
- Global tech support
Typical Education circumstances to negotiate

- Seasonal influx new students ("Hell week")
- Printing high number of cards
- Geographic spread of new students
- Complex IT environment (multiple systems)
- Multi site /campus organization (incl. Micro Campuses globally)

Running an efficient student card system is not an easy thing and hard work!!
What is CardsOnline

- **Independent** Full blown One-Card-Solution (CMS)
- With deep integration capabilities to other systems
- Automated (real time) data exchange between systems
- Easy (smartphone) enrollment
- Inline encoding (chip + mag) during printing
- Easy card issuing
- Sophisticated card management
- On premises or in the Cloud
CardsOnline meets UofA requirements ...and more

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Implementation of CardsOnline

- How did you prepare to transition the new cloud based software?
- How did you transfer all data without interruption of services?
- What were your biggest challenges?
- What were your finest benefits?
- How well does the system perform?
8K Smart Chip – has room for 28 apps
UofA has its own Desfire chip master key + full control all keys
Keys stored encrypted in CardsOnline – 4 invalid attempts to login will reformate & lockdown
Passwords secured by IT
Go Live Challenges:

• Keyless access
• Reporting
• Mag stripe encoding
Basic CardsOnline functions

1. Enrollment
2. Card design/Printing & encoding
3. Card Issuance
4. Card management /life cycle management
1. Enrollment challenges

Student Data → *how to get it into your card system?*

- Often inefficient integration with HR system → overnight/manual/incomplete
  - Integration with Student/HR system using webservices/cronjobs/CSV exchange etc.
  - Complete data set → part of Data Model
  - Sometimes info back to Student/HR system → Photo or unique ID NR
1. Enrollment challenges

Photo → *How to get photo in an efficient/user friendly way?*

- **On site**
  - Long lines with unhappy students waiting too long!
    - easy increase # photo stations (= laptop + UHD webcam system + browser)

- **Online photo submittal**
  - Often via University web portal → handling of photo files
    - Smartphone/Tablet upload using *Service Portal*
    - Per invite of Admin
    - After approval direct storage in student record
2. Card design/Printing & encoding

Card Design

- Often separate and limited designer/difficult to handle
- Integrated full functional card designer
- Static-Dynamic/biometric data ... the whole lot
- Unlimited # designs
- Encoding files linked to individual designs
- Designs available in the systems but are controlled
2. Card design/Printing & encoding

Printing & Encoding

- Often extensive manual encoding (rfid) after printing
- Takes lots of effort and time - error sensitive – costly
- Requires special skills

- Inline encoding & printing process
- After printing cards are ready to use
- Simple process --> select record(s) push print button on any workstation
- After encoding & printing card data automatically pushed to other systems
- Efficient and cost effective
3. Card issuance

How to efficiently issue cards

- Centralized printing – local issuance → logistics!
  - Central printing for location based issuance
  - Printing on individual locations and issuance
  - National Orientation → Off-site printing + issuing
  - Service Portal for selection Pick-up location
4. Card Management

Card life cycle management

- Full card history (ready for printing – blocking)
- Ability to block (temp/permanent), revoke, re-print
- Service Portal enables student to manage card by smartphone!!

  - Block card / request new card
THANK YOU

ANY QUESTIONS PLEASE