Innovate with a Purpose

The ID they want, when they want it

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Background

- Previously:
  - SVP of Market Development, (Blackboard) Transact
  - Cofounder of AVISIAN (publishing, consulting)
  - Assoc Dir of Florida State University's FSUCard program and Card Application Technology Center (CATC)

Agenda

- How we got here
- Informing the goal(s)
- Options
- Pursuit

Today's Big Question:

How to best align the interests of the university with the credential-centric needs of the students, staff, faculty, visitors, alumni, etc?

How we got here

Evolution of ID technologies
- Embossed cards
- Polaroid laminate (with barcode sticker, mag)
- B&W printed plastic
- Color printed plastic (mag, then contactless)
- Prox
- Contactless
- BLE
- NFC

Evolution of use cases
- Visual ID only
- Library circulation desk, dining
- Vending, laundry, copy, printing parking, POS, via proprietary devices
- Distributed card issuance
- Access control
- Event ticketing
- Multiple form factor options
- Broad 3rd party device support
- Virtual credential issuance

Informing the goal(s)

- University needs
  - Reduce costs where possible
  - Enhance the user experience from issuance to acceptance
  - Leverage data for better decision-making
  - Plot a path to standards-based environment
  - Leverage existing infrastructure

- Student needs
  - Fast, intuitive means of achieving their primary goal

- Regional goals
  - Standards, buying vehicles, reciprocity(?)

- Avoiding the vendor myth trap
  - "We don't have that or can't do it today, therefor it must be bad."

- Prepare for contingencies
  - A note regarding Covid

Legacy Credential Toolset
Good, But Ready to Be Great

Barcode
Point-solution oriented, broadly supported, minimal security

Magstripe
Accepted everywhere, minimal security
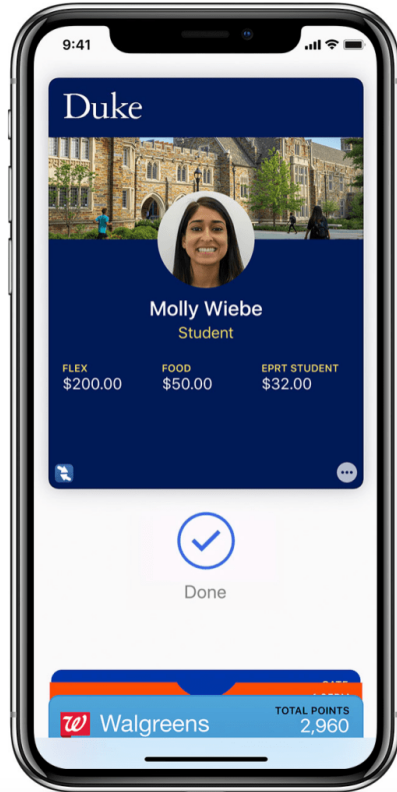
Biometric
Great security, more expensive, situationally compelling

Contactless
Excellent security available, challenges in establishing ubiquity

Opportunity: Take advantage of devices and habits that serve the greatest number of students, staff and faculty

Options for Mobile

- Mobile badge-only
    - Inexpensive, limited utility
- Mobile badge with barcode
    - Inexpensive, specific use case support
- BLE mobile credential
    - More secure, limited utility, uneven user experience
- NFC mobile credential
    - Most secure, broad utility, most complex prep
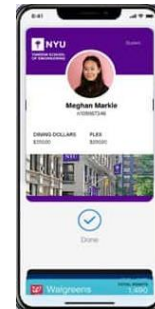
BLE vs. NFC

- Bluetooth Low Energy (BLE) is great!
  - Many commercial providers
  - Well-established technology standards basis
  - Low barrier to entry for both solution provider and university
- BLE presents challenges:
  - Lack of standard approaches to issuance, acceptance (use case limitations)
  - User experience can be uneven, or poorly suited for some applications
  - Reliability can improve, but often at the expense of the user experience
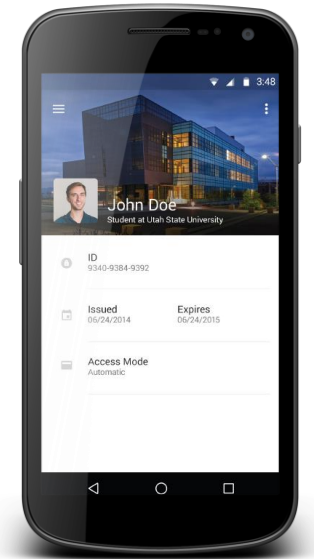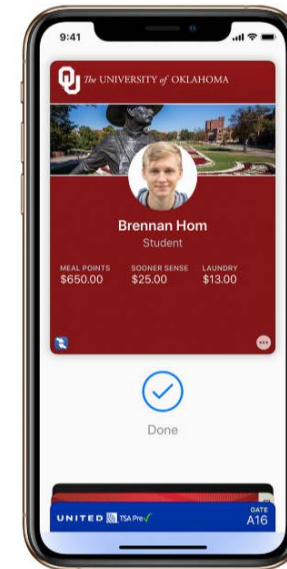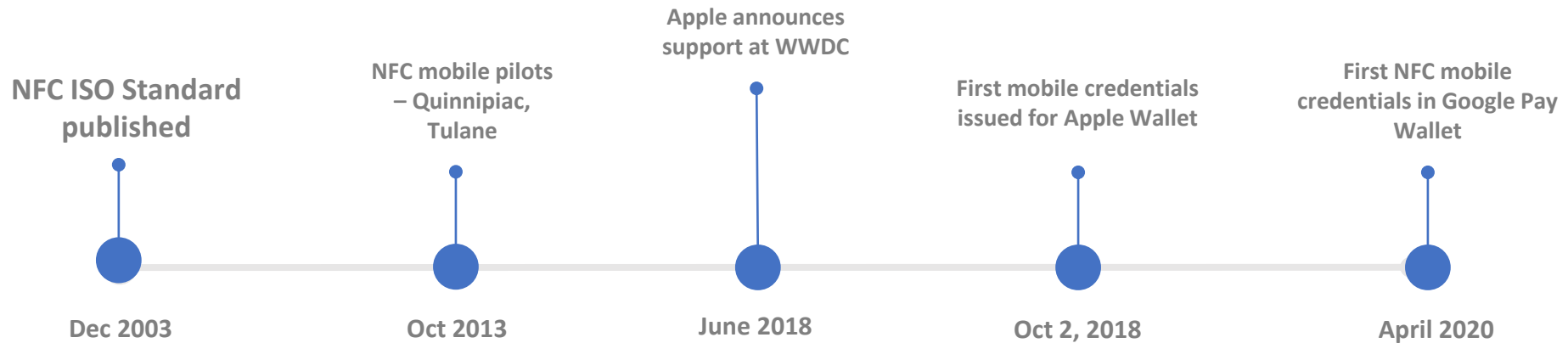
NFC vs. BLE

- NFC is great!
  - Well-established technology standards basis
  - All use cases can be supported
  - The best, most familiar user experience. By far.
    - Fast, reliable
    - Multiple device types supported (phone, wearables)
    - Consistent experience between Apple Pay and Google Pay devices
  - Establishes a two-pronged standards approach for campus infrastructure
    - Apple's Enhanced Contactless Polling (ECP) protocol
    - NXP's Mifare-to-Go protocol

- NFC presents challenges:
  - Fewer commercial providers
  - Higher bar for campus readiness
  - Complex project requirements

NFC – checking all the boxes

- Ultra-secure

- Very fast

- Works online or offline

- Support for iPhone, Apple Watch

- Works with depleted battery on enabled devices

- Google Pay NFC capable phones supported

- 24/7 over-the-air issuance

- Remote life cycle management

Success, but not overnight

NFC ISO Standard published

NFC mobile pilots – Quinnipiac, Tulane

Apple announces support at WWDC

First mobile credentials issued for Apple Wallet

First NFC mobile credentials in Google Pay Wallet

Dec 2003   **Oct 2013**   **June 2018**   **Oct 2, 2018**   **April 2020**

NFC: Challenges and Opportunities

- Obstacles to adoption
  - Exec sponsorship
  - Solution provider support
  - Use case requirements
  - Full ecosystem preparedness, upgrades
  - Campus alignment under one credential strategy
- Benefits!
  - Dramatic improvements in user experience
  - Greatly enhanced security profile
  - Greater choice of devices
  - Streamlined administrative operations
  - Rich data/reporting

NFC Mobile Credential Adoption

- 2018: 6 universities announced

- 2019: 27 universities committed

- 2020: 52 universities committed

- 2021: 76 universities committed YTD

- It's just begun!
  - NACCU survey: 71% of N.A. campuses either have mobile credentials or plan to deploy in next 5 years

Your Students will thank you!
(and faculty, staff, alumni)

OU Housing & ResLife @OU_HRL · Oct 2

Sooner Card is now available in **Apple** Wallet at @UofOklahoma! From getting into your residence hall, to paying for coffee at a nearby cafe, contactless **student ID** cards in Wallet bring a whole new way of getting around campus.

Visit ou.edu/soonercard for full details.

Now available on iPhone in Apple Wallet

SOONER CARD

Chris Roberts
@MassComm101

I just used my iWatch to open a door at @UofAlabama.
As Arthur C. Clarke said: 'Any sufficiently advanced technology is indistinguishable from magic.'
ow.ly/FPeM30m3YoW

6:10am · 2 Oct 2018 · Hootsuite Inc.

Temple Admissions @admissionsTU · 17h
Coming soon to Temple: **Student ID** cards via **Apple** Wallet.

Apple Wallet will support college student ID cards
iPhones will really never leave kids' hands now.
mashable.com

CT Thorn @chevygu... · 04 Jun
Did y'all know The University of **Alabama** will be one of the First College Campuses to allow virtual **student ID** Cards on the Apple Watch that will allow **students** access to buildings , laundry and Dining Dollars etc. ? Roll on Tide.. Roll on..

Karim @KreamyLasa... · 04 Jun
Oh great. If I went to University of **Alabama** or Oklahoma University I could put my **student ID** on my iPhone to pay with flex dollars for food

Pursuing a Path to success

- Leverage solution provider marketplace for insight, support, commitment
- Formulate and leverage a campus-wide, unified strategy
  - Develop situational awareness:
    - Mobile device adoption among students
    - Departmental use case surveys
    - Device inventory across campus
    - MFA or 2FA plan alignment
  - Identify a path to enablement
  - Secure executive sponsorship
  - Map budgetary support

Conclusion

1 Elevate the conversation

2 Raise the bar for internal and external stakeholders

3 Meet then exceed constituent expectations

Thank you!

Questions?

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