Implementing the HID Mobile Credential at Clemson

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Clemson University

- Founded in 1889
- 4 year Public, Land-grant Research Institution
- Located in the foothills of the Blue Ridge Mountains (SC)
- 24,951 Total Enrollment
- 5,392 University Employees
Success Criteria for Phone Based Credential

It must be faster and more convenient than using a card
HID Mobile Credential

Available Mobile IDs

1130 Available

Mobile Users

<table>
<thead>
<tr>
<th>Last name</th>
<th>First name</th>
<th>Email address</th>
<th>User ID</th>
<th>Last Updated</th>
</tr>
</thead>
<tbody>
<tr>
<td>FINCH</td>
<td>AMANDA</td>
<td><a href="mailto:AFINCH@CLEMSON.EDU">AFINCH@CLEMSON.EDU</a></td>
<td>19699</td>
<td>3/25/2019</td>
</tr>
<tr>
<td>SCOTT</td>
<td>HARVEY</td>
<td><a href="mailto:HBSCOTT@CLEMSON.EDU">HBSCOTT@CLEMSON.EDU</a></td>
<td>87411</td>
<td>3/25/2019</td>
</tr>
<tr>
<td>STURGIS</td>
<td>ELIZABETH</td>
<td><a href="mailto:ESTURGI@CLEMSON.EDU">ESTURGI@CLEMSON.EDU</a></td>
<td>53306</td>
<td>3/23/2019</td>
</tr>
</tbody>
</table>
Access Control Trail Group

• 40 Honors Students
• Found a lot of access control readers that needed to be reflashed.
• Discovered that provisioning went more smoothly on newer phones
• Realized we needed a better way to provision
• Request for use at dining locations and retail locations
• Need a way for Students to Disable
# Disable Mobile Credential

## Credential Management

### Status

<table>
<thead>
<tr>
<th>TigerOne Card</th>
<th>Mobile Credential</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Status: Active</strong></td>
<td><strong>Status: Active</strong></td>
</tr>
</tbody>
</table>

**If your card is lost or stolen, disable it by clicking "Deactivate My Card" below.**

Once deactivated, your card and all accounts on the card will be disabled.

Your current lost/stolen card will not be usable until it is reactivated.

[Deactivate My Card](#)

**If your phone is lost or stolen, disable the HID Mobile Credential by clicking "Deactivate My Mobile Credential" below.**

Once deactivated, your mobile credential and all accounts on the mobile credential will be disabled.

Your current lost/stolen mobile credential will not be usable until it is reactivated.

[Deactivate My Mobile Credential](#)
HID Mobile Issuance Via CSGold

1. Set a flag for a patron in CSGold
2. An invite email is sent to the patron
3. A HID smart card number is sent to CSGold
4. The patron downloads the HID app
5. The patron enters the code from the email into the HID mobile app
6. Credential is downloaded to device
7. Credential is marked as accepted in CSGold
Infrastructure with HID Mobile Credential

HID Fargo Connect
- Printing System
  - smart card

HID Mobile Portal
- Mobile Credential Issuance
  - mobile number

CSGold
- Transaction System
  - smart card

Simphony
- Point of Sale System for Retail and Dining

Barnes and Noble
- Book Store

eDirectory
- Active Directory
  - smart card

Genetec
- Physical Access Control System

Fusion
- Campus Rec

Collegiate Link
- Organizations & Attendance

TigerOne
## Broadening the use cases for the HID Mobile Credential

**HID Omnikey R54270111 < $200**

<table>
<thead>
<tr>
<th>Bluetooth functionality</th>
<th>WITH BLUETOOTH</th>
<th>WITHOUT BLUETOOTH</th>
</tr>
</thead>
</table>
| **Contactless Smart Card Interface** | T=CL, MIFARE®, iCLASS®  
ISO 14443A/B - up to 848 kbps (depending on card)  
iCLASS SE and Seos (can read data only / no writing)  
Felica (only UID)  
NFC Tag (1, 2, 3, 4, 5) | T=CL, MIFARE®, iCLASS®  
ISO 14443A/B - up to 848 kbps (depending on card)  
iCLASS SE and Seos (can read data only / no writing)  
Felica (only UID)  
NFC Tag (1, 2, 3, 4, 5) |
| **Protocols and Cards HF** | HID Prox (FSK)  
Indala (PSK)  
EM 41xx (ASK)  
Hitag 1, 2, S (Hitag) | HID Prox (FSK)  
Indala (PSK)  
EM 41xx (ASK)  
Hitag 1, 2, S (Hitag) |
| **Protocols and Card LF** |  |  |
| **Bluetooth Interface** |  |  |
| **Supported Functions** | HID Global Mobile Access Service  
Seos OTP over Bluetooth |  |
Point of Sale Trail Group

• 44 Point of Sale Registers
• 1500 Access Control Doors
• 300 IN120 Apt Doors
• Official Support Structure is Needed
• Provisioning Doesn’t Always Work
• Re-invites Are Problematic with the API
• License Structure Does not work with the API
• API does not include the Leading Zero on Media Types
HID Mobile Credential Instructions

Instructions for Installing the Mobile Credential

• Log into the TigerOne online card office and select the Notifications/Settings tab. Make sure your My Contact Methods is set to email and NOT a text message. The link to the online card office is https://t1online.app.clemson.edu/
• Download the HID Mobile App from the IOS app store or the Google play store
• Once your name has been entered in the HID Mobile Access credential system you will receive an email invitation
• Follow the instructions in the invitation email to enter the invitation code into the HID Mobile App. Your mobile credential will then be downloaded into the App.
• From your settings screen ensure that the HID Mobile Access app will only function when your device is unlocked
• The first time you open a door with your mobile phone, you should open the HID Mobile Access App. After that, the App, will need to be running in the background with Bluetooth enabled.
• If you have an Android device, ensure that NFC is deactivated

Minimum Device Requirement

• Iphone 7 or newer
• IOS 11
• Android 4.5 or newer

Important Things to Know

• Your RA and fellow students are your support for any problems that you experience with your mobile credential. The mobile credential may not work on all phones and operating systems.
• The mobile credential should NOT be seen as a replacement for your physical TigerOne card. This is a new technology that is only meant to increase convenience, make sure you continue to carry your TigerOne card with you at all times.
• For now the mobile credential will work at door access readers, POD locations and Dining Halls. Look for the small black reader with the TigerOne sticker.
• When you tap at a door or TigerOne readers marked with the sticker the Apple Pay screen may appear on your screen but you will not be charged through Apple Pay.
• The mobileID may not work on Android phones if NFC is enabled
• If you get a new phone, reset your phone, upgrade your phone or delete the HID Mobile Access app then your mobile credential will be permanently lost. Replacement mobile credentials can be purchased at the TigerOne office for 30 dollars.
Unexpected Items

• HID Mobile Credential roll out had a lot more hurdles then we expected
• Students and Clerks love the new tap readers to use their cards at dining and retail locations
• Dining Hall lines have become express lanes using the reader for card tapping instead of swiping
Yet to Be Resolved Challenges

- App must be running as a background process and needs to be restarted occasionally
- Issuance is not always successful requiring time intensive troubleshooting
- API often breaks with reissues permanently destroying usability for that user
- Overly involved issuance process
Future of Mobile at Clemson

It must be faster and more convenient than using a card.
Questions