Safer Illinois App:
Testing, Tracing, Access in the Face of COVID-19

IAM Online
Wednesday, November 11, 2020

Presenters:

Edward Delaporte, Manager, Cybersecurity Software Development & Assurance, University of Illinois
Isaac Galvan, Senior Application Developer, University of Illinois
Keith Wessel, IAM Architect, University of Illinois

INTERNET2 | InCommon

The Safer Illinois Story

- March 2020: Moved to online instruction and remote work
- July 2020: Rapid on-campus COVID-19 testing available
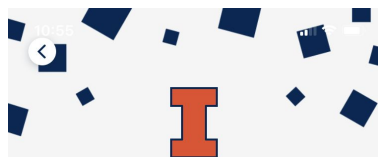- August 2020: Safer Illinois app launches

ROKWIRE Platform

- Massive collaboration of many colleges and units
- Open-source mobile software platform
- Designed to rapidly integrate new functionality and data sources without starting from scratch each time
- Aims to dramatically lower the cost of digital services
- Privacy-first architecture and governance
- Smart, Healthy Communities
- Debuted with the Illinois App in 2018
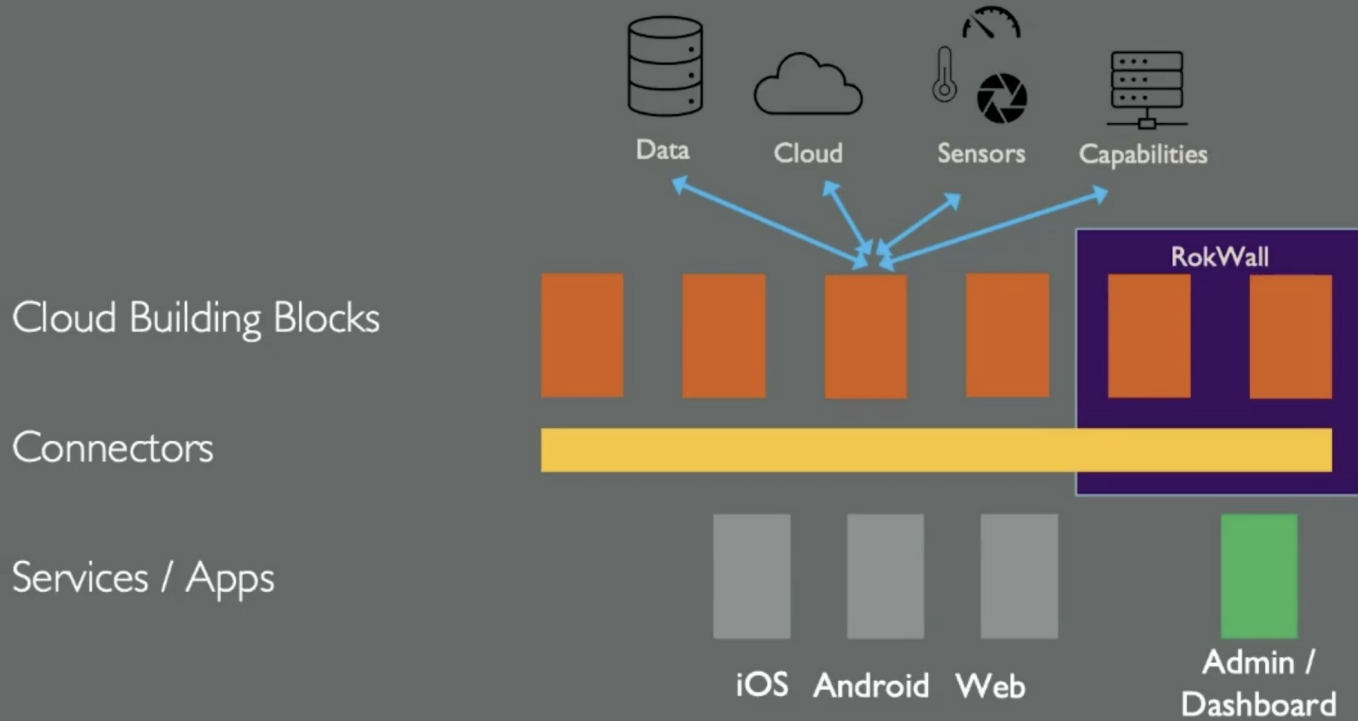
First-time Setup

Connect your NetID

Log in with your NetID

Log in with NetID

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tests positive for COVID-19 in the next 14 days, the app will alert you to your potential exposure and advise you on next steps. Your identity and health status will remain anonymous, as will the identity and health status of all other users.

I consent to participate in the Exposure Notification System (requires Bluetooth to be ON).

Automatic Test Results
I consent to connect test results from my healthcare provider with the Safer Illinois app.

I consent to allow my healthcare provider to provide my test results.

Your participation in these COVID-19 features is voluntary, and you can stop at any time

Next

Your COVID-19 Encryption Key

For your privacy, your healthcare data used for COVID-19 features is encrypted. The encryption key is stored locally on your phone to keep it secure.

To use the COVID-19 features on another device, you will need to manually transfer this encryption key using the QR code below.

Safer Illinois Home

Stay Healthy

NEXT STEP
Take a SHIELD Saliva Test when you return to campus.

Find test locations

Symptom Check-in >
Self-report any symptoms to see if you should get tested or stay home.
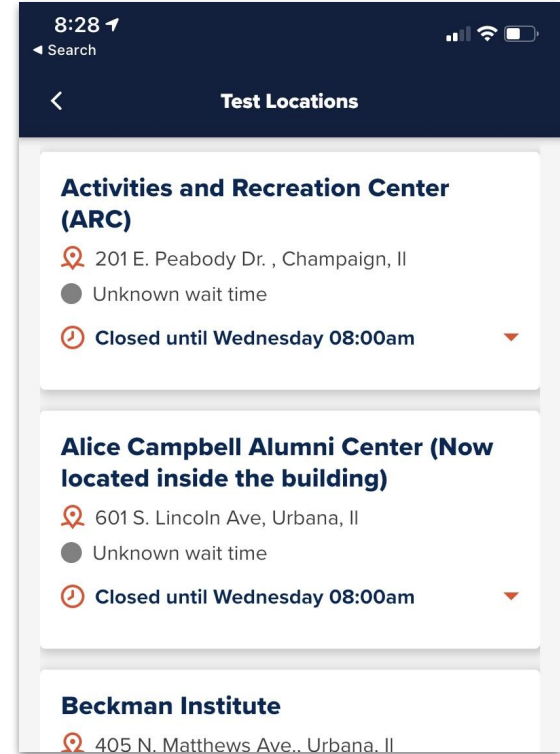
Add Test Result >
To keep your status up-to-date.

Your Health

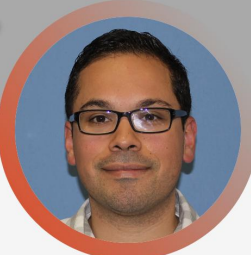Current Status:

Orange, Test Required

Finding Test Locations

Checking In

The Test

Getting Your Results

SAFER ILLINOIS   21m ago

COVID-19
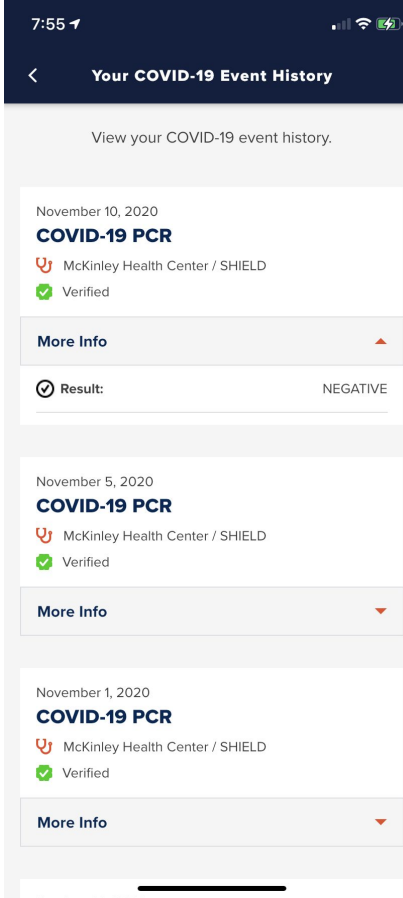You have received a COVID-19 update

NEXT STEP   November 18, 2020

Monitor your test results

You will turn orange/access denied if no negative test by Wednesday, Nov 18.

Find test locations

7:55

Your COVID-19 Event History

View your COVID-19 event history.

November 10, 2020
COVID-19 PCR
McKinley Health Center / SHIELD
Verified

More Info

Result: NEGATIVE

November 5, 2020
COVID-19 PCR
McKinley Health Center / SHIELD
Verified

More Info

November 1, 2020
COVID-19 PCR
McKinley Health Center / SHIELD
Verified

More Info

Building Access

Exposure Notification System

Privacy-preserving Bluetooth exposure notification system developed at Illinois. Completely voluntary and tuned for effectiveness.

Quarantine and Isolation Support
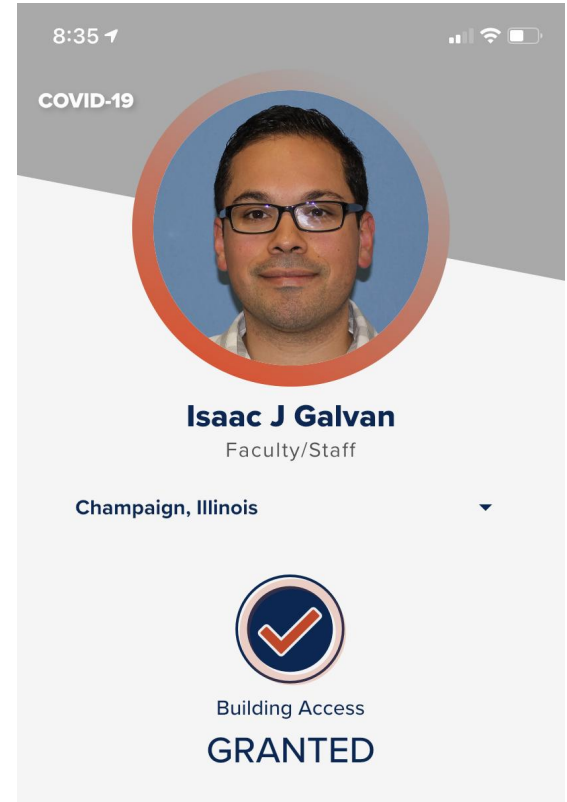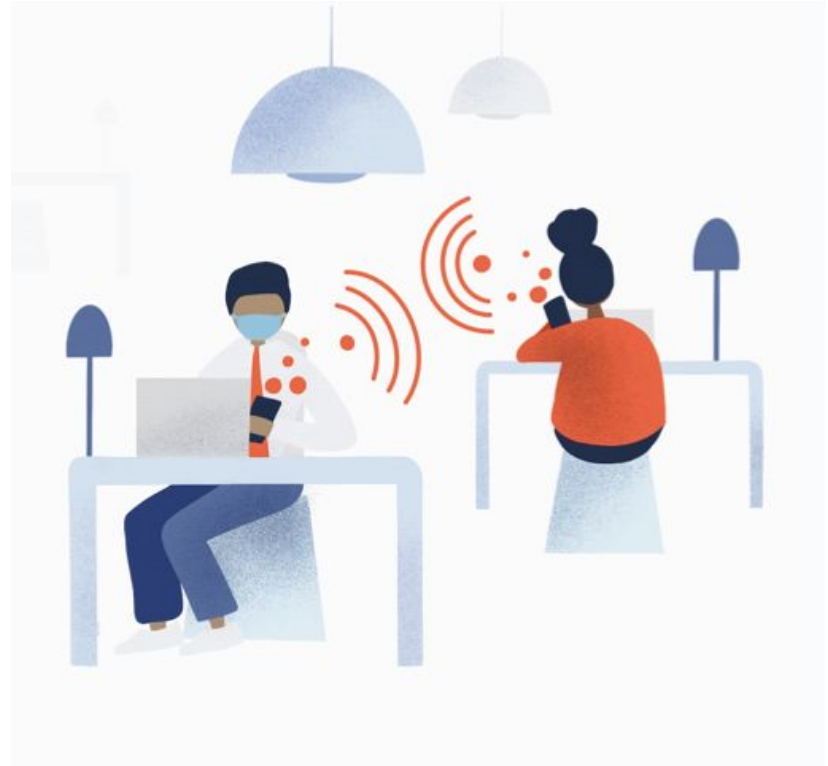
Case 1: Test Result Positive

NEXT STEP

You have been placed in mandatory isolation.

- Stay home. Do not go to work, school, or public areas.
- Separate yourself from others in your home.
- Contact Champaign-Urbana Public Health District Immediately at **coronavirus@cuphd.org**
- Stay in isolation until you are released by CUPHD through this app.

More About Isolation ↗

Case 2: Contact Trace Quarantine

NEXT STEP

You have been placed in mandatory quarantine.

- Stay home. Do not go to work, school, or public areas.
- Separate yourself from others in your home.
- For questions, contact Champaign-Urbana Public Health District Immediately at **coronavirus@cuphd.org**
- Get tested on the fourth day following exposure to see if you have developed the disease.
- You can leave quarantine on the fourteenth day after exposure.

More About Quarantine ↗

Case 3: Exposure Notification Quarantine

NEXT STEP

You have likely been exposed to a person who is infected with Covid-19.

- You must quarantine yourself immediately.
- Stay home. Do not go to work, school, or public areas.
- Separate yourself from others in your home.
- Contact **shieldteam30@illinois.edu** for guidance
- Get tested on the fourth day following exposure to see if you have developed the disease. If you test negative at that time, you can release yourself from quarantine.

More About Quarantine ↗

Case 4: Release from Isolation or Quarantine

NEXT STEP

You are released from quarantine or isolation.

- On this day you are released from quarantine or isolation.
- You can resume your daily activities.
- Resume regular testing.

Find Testing Locations

Authentication

- It's Shibboleth!

- Put the Shibboleth OIDC extension in production August of 2019

- Had to make a few adjustments for these clients

  - Increased refresh token lifetime

  - Releasing some values of isMemberOf manually

- New features coming in IdP will help to simplify these tasks

- Users see the usual MFA and consent UI that they're used to

Authorization

- Grouper saves the day

- We've run Grouper since late 2019

- Running in AWS using I2 Trusted Access Platform

- App owners have their own folder

- Groups in that folder are synced to Active Directory

- Shibboleth releases any group memberships with the given prefix to the app

Agility in Cybersecurity

- Relationships
  - Established relationships
    - Between Cybersecurity, IAMU and Development Teams
  - Agile-friendly practices in IAMU and Cybersecurity
- Frameworks
  - Rokwire - Community oriented agile open source framework
  - Rokwall - Privacy oriented research team supporting Rokwire

Rokwire/Rokwall Adapted for COVID

Two experiences in one application:

- ○ Exposure Notification
- ○ Testing Center

Privacy-first

- Health data is encrypted, only key is on your phone
- Easy to understand Privacy Policy
- Data privacy committee and several reviews from campus
- Remove your data anytime

Safer Illinois: Just one piece of the puzzle

- SHIELD: Target, Test, and Tell

- SHIELD Team 30

- SHIELD Surge

- Student Affairs and Housing

Lessons Learned

- Privacy first
- Test your messaging with real users
- App store approvals can be lengthy
- Expect questions at launch, lots of them
- Not all users have smartphones
- Remain flexible as the situation updates
  - Different rules for different groups, from as large as "all undergraduates" to as small as a single residence

What's next?

- More detailed testing plans for Spring return
- Community testing
- Expanding to other communities and campuses via ROKMETRO

Resources

- [Safer Illinois Website](#)
- [University of Illinois COVID-19 website](#)
- [COVID-19 Testing Dashboard](#)
- [COV-Course: 08. Data Security and Privacy](#)
  - William Sullivan and Sanjay Patel go in-depth
- [Safer Illinois on Github](#)

Questions & Answers

CAMP - November 16-17, 2020 - Track sessions, organization case studies, software project updates

ACAMP - November 18-20, 2020 - Unconference, moving IAM forward internationally

Virtual via Canvas

Details and Registration: www.incommon.org/camp2020

IAM Online Evaluation

https://www.surveymonkey.com/r/IAMOnline-Nov-2020