TRANSFORMING CAMPUS SAFETY

WITH LOCATION SERVICES AND EMERGENCY CALLING IN YOUR MOBILE APP

CLASS ENDS.
IT'S DARK.
YOUR CAR IS A 15 MINUTE WALK AWAY.
SHADOWS BECOME OMINOUS.
EVERY PERSON ON THE SIDEWALK IS A SUSPECT.
ANXIETY BUILDS.
WHAT DO YOU DO?

OPEN UH GO.

VIEW THE COMPLETE PRESENTATION

PRESENTED BY
UNIVERSITY of HOUSTON
UNIVERSITY INFORMATION TECHNOLOGY

PLANNING

CRITICAL SUCCESS CRITERIA

Criteria Used to Determine Success

Ease of Use with privacy and function: Preventing unintentional location sharing and providing clear information for emergency services

Caller is alerted if they are off-campus and then call is routed to City of Houston 911

UHPD web-based map showing geo-location of the caller when the caller is on-campus

Maintain privacy

HOW UH PREPARED FOR OUR EMERGENCY CALLING FEATURE

1. Gathered requirements based on current infrastructure
2. Brainstormed with UH Go team that included UH Marketing to develop prototypes
3. Identified risks
4. Demonstrated feature to University Police (UHPD) department communicating risk factors
5. Gathered additional requirements from University Police
6. Integrated all requirements into new designs for both frontend and backend
7. Tested 911 features
8. User tested with student ambassadors
9. Full system test with UHPD
10. Deploy to production

BRAINSTORMING

Can we see people moving around?

How do we keep this private?

Does dispatch need a script?

Make the user feel safe

What if they are on campus?

How do we make this easy to use?

What permissions has the user allowed?

What security measures do we need?

What should reports look like?

How do we get the permission we need?

How to test 911?

What admin and reporting functionality do we need?

PROTOTYPING

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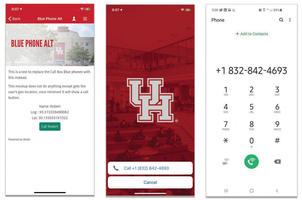
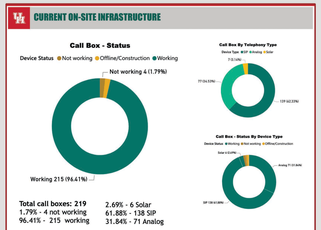


IDENTIFYING RISK

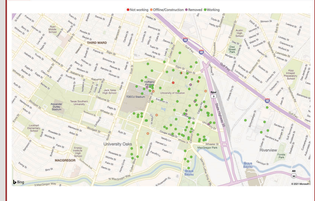
During the development of this project several risk factors were identified and MUST BE considered…

1. Highly available even in an emergency
2. Cost effective
3. User friendly and easy to use in case of an emergency
4. Police jurisdictions
5. Backend reports available to UHPD to meet compliance requirements
6. Limitations associated to geo-location
7. Able to "Close the Loop"

CURRENT ON-SITE INFRASTRUCTURE

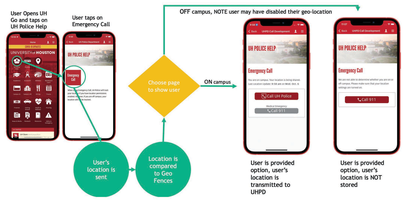


CALL BOXES ON A MAP



USER EXPERIENCE

USER FLOW

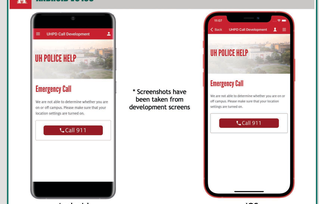


OUR APPROACH

It is important to have a unified look at feel. We strived to have the same look for both iOS and Android.

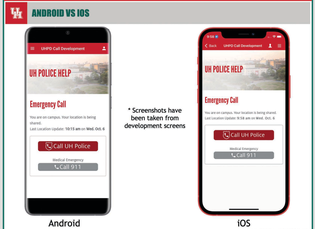
Notice that both devices render the screen the same other than screen resolutions

ANDROID VS IOS



* Screenshots have been taken from development screens

ANDROID VS IOS



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GETTING THE USER'S CONSENT

In order to allow the app to proceed with gathering the user's geo-location we need to consider the following:

User needs to know their location is being sent to University Police.

User needs to grant permissions to their location via app settings and we needed to communicate this.

We needed to tell the user that their location is being used to determine if on campus.

What if they don't agree or set their permissions correctly?

LOCATED ON CAMPUS

When a user is located on campus, they see a message like this…

Time stamp of when their location was last updated.

In the background the app refreshes the location of the user when the app detects a change in geo-location

Give the user options on actions to take, we don't take the action for them, but University Police knows where they are.

LOCATED OFF CAMPUS

When a user is located outside of the UHPD jurisdiction, they are still prompted with a message.

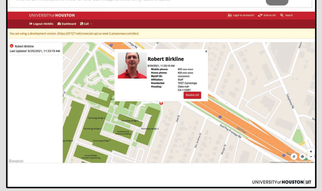
The app responds with a limited response of 'Call 911'

In the background, the app refreshes the location of the user when it detects a change in geo-location. If the app detects you re-entering a geo fence, then the message will change.

* Additionally, the app begins to send the updated information to UHPD

BEHIND THE CURTAIN

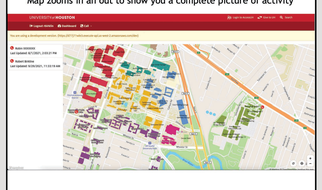
ADMINISTRATIVE USER LOCATION MAP



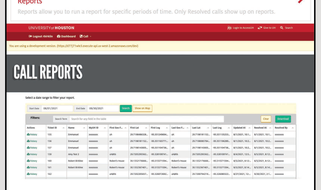
ADMINISTRATIVE DISPATCH MAP

ADMINISTRATIVE PANEL WITH MULTIPLE PEOPLE

Map zooms in an out to show you a complete picture of activity



ADMINISTRATIVE REPORTING



ADMINISTRATIVE REPORTING MAP

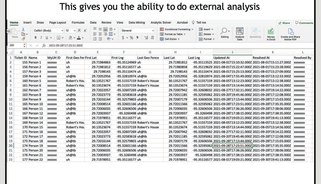
Run your report and show emergency calls on the map.

You can see if there are any clusters of calls.

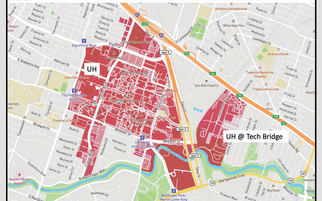
DOWNLOAD REPORT

Run a download of calls and get all the information available.

This gives you the ability to do external analysis



GEO FENCES



GEO FENCES