Ad Hoc

VA Mobile App Discovery Sprint

Week 2: Output + Outcomes

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March 13, 2020

Agenda

➔ Where are we in the process?

➔ Week 2: Output + Outcomes

◆ Technical Feasibility

◆ Veteran Desirability

➔ Next Steps

Where are we in the process?

Schedule

Week(s)	Guiding Question	Activities	Output	Outcome
0	What feature sets + frameworks should we evaluate from a technical feasibility and Veteran desirability perspective?	1. Discussions with CTO's office 2. Discussions with VA technical SMEs	List of mobile app development frameworks and features to evaluate	Consensus on feature set + frameworks to be researched in coming weeks
1	What feature set + framework should we prototype?	1. Evaluate feasibility of mobile frameworks using matrix 2. Begin to research Veteran desirability of features using matrix	- Research findings - Recommendation on what to prototype	Consensus on which technical framework and feature set to prototype
2 + 3	Is this prototype a viable option for the VA? Does it speak to Veteran needs?	1. Technical experimentation 2. User research and usability testing	Technical and user research findings	Feedback and input on how to iterate on prototype
4	What are the pros/cons to different technical approaches and the impact of implementing them to the VA?	1. Future proofing 2. Synthesis	Report and prioritized recommendations	Recommendation for which framework offers the best combination of technical feasibility and Veteran desirability

Technical Feasibility

Schedule: Technical Feasibility

Planning		Week 1	Week 2	Week 3	Week 4
Frameworks	Guiding Questions	Activities		Output	Outcome
1. Fully native app (iOS + Android) 2. Cross-platform (React Native) 3. Cross-platform (Xamarin) 4. Cross-platform (NativeScript) 5. Hybrid (Ionic) 6. Hybrid (Ionic React) 7. Hybrid (Flutter) 8. PWA (Progressive Web App)	1. How much reuse is possible? 2. What would the investment be? 3. How does the UX change?	Technical analysis to develop initial hypothesis	Experimentation	Continued Experimentation and comparison	Recommendation for which framework is the most technically feasible

What did we learn this week?

Ionic React has some potential

Mo — **Tu** — **We** — **Th** — **Fr**

REUSE
Experiment with Ionic, try reusing VA front-end components

UX
Explore the UX further by building Facility locator and VCL panel

LOGIN
Explore porting VA.gov login flow to Ionic

BACK-END
Explore API suitability

Here we are!

Reuse

Engineers enjoyed the framework, and it was fast

We got VADS components running,
will require "premium" version to fully leverage VA.gov code

"Getting started with ionic was actually very easy"

UX

Fast to develop features and only a few snags along the way

Rendered well as a PWA - some design work would be needed to improve the experience

Planning to test phone features, such as camera, on devices to dig into this more

https://ad-hoc-ionic-test.firebaseapp.com/facilities
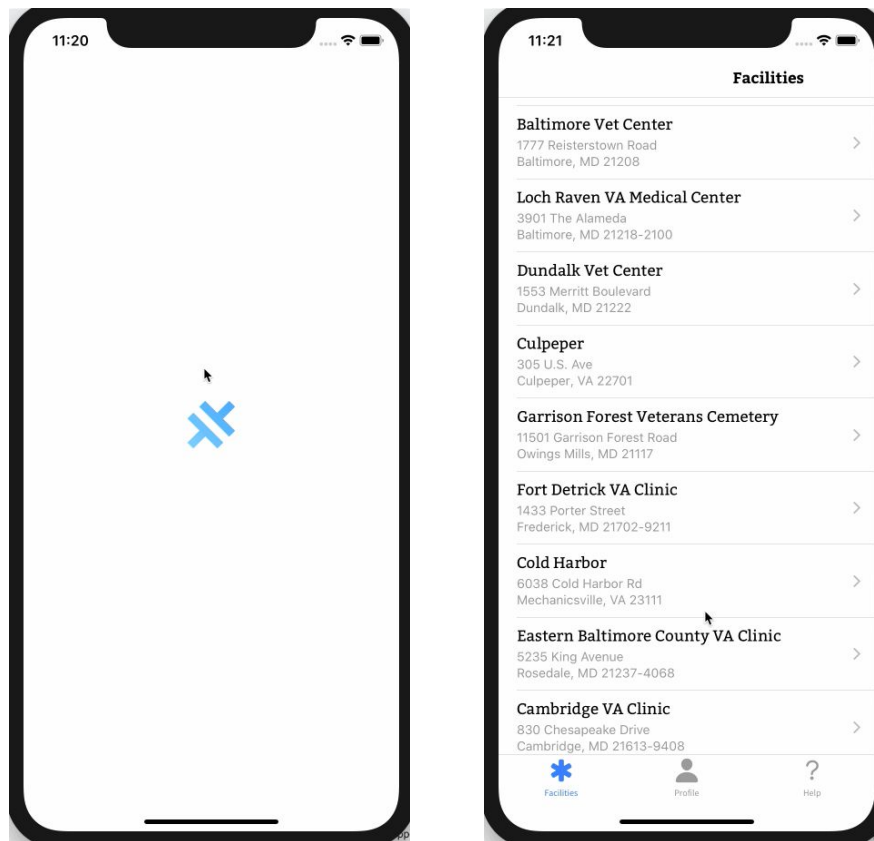
Login + Back-end

We were able to successfully import the login flow using Lighthouse API - OAuth

Our app was able to fetch a code through the API

But we hit two
that
upport "implicit

WIP

VA.gov Mobile

Login with VA.gov Oauth

ID.me login on VA.gov

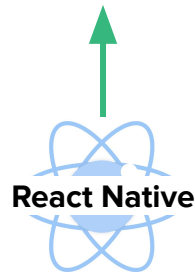Login   Claims   About

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Next Week

A cross-platform approach (React Native) may provide a better UX than Ionic and is still less investment than a fully native approach.

Next step: Testing our assumption that React Native will allow the VA to reuse some code and leverage existing APIs but also enhance the overall UX.

Native

React Native

PWA

Veteran Desirability

Schedule: Veteran Desirability

Planning		Week 1	Week 2	Week 3	Week 4
Feature Areas	Research questions	Phase One	Output	Phase Two	Outcome
VA Mobile login experience	What are Veterans preference when logging in to VA mobile?	Card sorting (unmoderated)	Use card sorting results to develop prototype ideas	Finalizing prototype, perform usability testing with Veterans on prototype	Prototype and recommendations for VA mobile login experience
Initial VA mobile app screen (after logging in)	What initial screen do Veterans expect/need to see after they log on to VA mobile?				Prototype and recommendations for VA initial VA mobile screen
VA mobile interactions	What interactions do Veterans want to be able to perform on VA mobile?				Prototype and recommendations for VA mobile interactions

Phase One: Card sorting

Background

As outlined in Phase One of the VA Mobile App Discovery: UX Research Plan, we performed a card sorting activity to help determine what feature set Veterans most desire in a VA mobile application. This activity allowed us to determine what Veteran-centered direction we should go for **Phase Two**, creating a testable prototype. The priorities we uncover here will help us shape the technical discovery and set the stage for usability style research to come.

Veteran-centered method

We used unmoderated remote card sorting to quickly understand from each Veteran how they would think about VA mobile features, prioritize and categorize them in a way that makes the most sense to them.

Optimal Workshop Card Sorting
https://www.optimalworkshop.com/optimalsort

Research Plan
https://docs.google.com/document/d/1x366wACqlyLjLWu9frsDzXM-f9BbkAUiK0Ur0ghWMw4/edit

Card sort results

What Veterans DON'T want

1. Ability to **compare GI bill benefits by school** on a VA mobile application

2. Ability to **sign in for an appointment** on a VA mobile application.

3. Ability to **view payment history for a benefit** on a VA mobile application.

4. Ability to **add VA documents or cards (such as DD214) to their Apple Wallet or Android Pay.**

What Veterans want (ranked)

1. Ability to **request their military records** on a VA mobile application.

2. Ability to **change their address, phone number or email address** on a VA mobile application.

3. Ability to **upload documents for a claim** using their phone's camera on a VA mobile application.

4. Ability to **get notifications** about things like secure messages, appointments, claims status, etc on a VA mobile application.

5. Ability to **get help in a crisis** on a VA mobile application.

Post-study question 1

Were there any **mobile features** that you felt were **missing**; other things we should include in a VA mobile experience?

"Ability to log in with a pin or facial recognition" -- P2

"Ability to add appointments from the VA app to my calender phone app: I use IOS so having the option to have it transfered to my calender straight from the app" -- P2

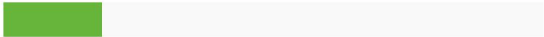" send messages to the VA, not just healthcare team, ex. message about gibill benefits" -- P2

"View current priority group for VA health care and upload documents have that decision reevaluated" -- P2

"Education benefits tracker, months remaining etc" -- P9
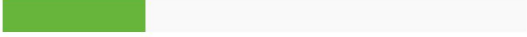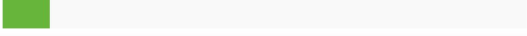
"VA Home Loan info" -- P10

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Post-study question 2

Do you use a **fingerprint or facial recognition to unlock** your mobile device?

Answer	Percentage	Frequency
Yes		72.7%	8
No		18.2%	2
Unanswered		9.1%	1

Post-study question 3

Would you **want to use your device's fingerprint or facial recognition** to open a VA app?

Answer	Percentage	Frequency
Yes		63.6%	7
No		27.3%	3
Unanswered		9.1%	1

Post-study question 4

Do you have any other comments or suggestions based on what you saw today?

"It would be nice if a user could customize their experience almost with. Dashboard. For instance I don't use the VA for healthcare so some the topics weren't relevant to me or at least not at this time."
-- P10

Phase Two

Phase Two: Usability testing

Method

With a clearer idea in mind of what features Veterans need from a VA mobile application and how they prioritize them, we will be better equipped to develop a clickable prototype for our team to test with. This study will help to inform an initial vision for VA mobile and the direction we take in creating a world class mobile experience for Veterans.

Phase Two: Affinity diagramming

Method

Affinity diagramming is a method that helps teams collaboratively analyze research findings as well as ideas from ideation sessions. We'll use this method to take our findings from our Veteran interviews and collectively come up with overarching themes from those findings.

Next Steps

Week 3: Output + Outcomes

What you can expect from us next week:

➔ **Technical Feasibility:**

   ◆ Explore cross-platform solution (React Native)

➔ **Veteran Desirability:**

   ◆ Completed usability study of clickable prototype

   ◆ Affinity diagramming session with discovery team + VA stakeholders

   ◆ Start creating final set of recommendations, pair with tech feasibility branch

➔ Sophie will be out of office next week. Ambika Roos will be our POC

Appendix

Participant

Completion

11
out of 24

11 of 24 (46%) participants completed your study. 6 abandoned. 7 applicants (29%) have been rejected by the screening question.

Time taken

7 m **56** s

It took your participants a median time of 07:56 to complete the study.

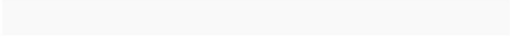The longest time was 16:41 and the shortest was 04:48.

Location

📍 **United States**   **100** %

Your participants were mainly from United States.

You set up an English (US) language study.

Screener question

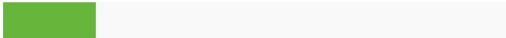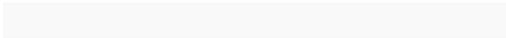Are you a Veteran who has used VA services through a website or application?
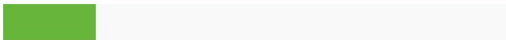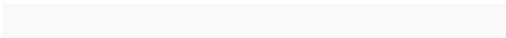
Answer	Branched to	Percentage		Frequency
Yes	Go to study		100%	11
No	Reject		0%	0

Pre-study questions contd.

Question 1

Checkbox select (optional)

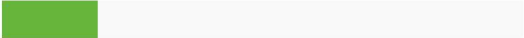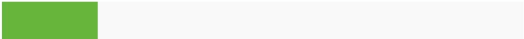What branch (or branches) of the military have you served in? Please select all that apply.
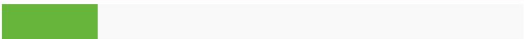
Answer	Percentage		Frequency
United States Army		72.7%	8
Air Force		18.2%	2
Navy		0%	0
United States Marine Corps		18.2%	2
Coast Guard		0%	0

Pre-study questions

Question 2

Radio button (optional)

In total, how long was your service throughout your military career?

Answer	Percentage		Frequency
2 - 4 years		18.2%	2
4 - 6 years		18.2%	2
6-10 years		45.5%	5
More than 10 years		18.2%	2

Appendix (Technical)

Developer analysis
➔   [Ionic React – Nick Sullivan](#)
➔   [Ionic React – Narin Ratana](#)
➔   [VA API sign in integration – Ben Shyong](#)

PWA Experiments with Ionic React
➔   [Facilities Locator](#) – API Data and Basic VADS Styling
➔   [Sign in prototype](#) – Port existing auth