

Phase 2 research planning for Virtual Agent

In rough order of priority

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Purpose

This is a parking lot doc of ALL possible research; as we go forward we'll break these up into separate research plans as indicated in the [Research tracker](#) (which has the logistics of research dates etc). As we create a formal individual research plan, please move the content into a new template for the actual research plan. Looking for background info on claims? Check out the [Claims 101](#) doc or the [meeting minutes](#). Note areas in yellow still need to be resolved.

For each of the research areas you'll see a box at the beginning of each section:

- Questions (what we're trying to understand about a problem)
- Hypotheses to help validate if our solution is the right approach
- Metrics and data to support or refute our hypothesis and point to a successfully created product

These are mandatory for each research plan we submit as part of working on va.gov and cannot be skipped; a vague hypothesis is better than no hypothesis, but unless you know what you want to research, why you want to research and how you know you'll be successful, your research will be meaningless. You can learn more about the VA research process on [Github](#).

The role of research and usability testing

There are many drivers of why we do research and why we conduct user feedback sessions (i.e usability testing¹). It's important to start to think through what we want to achieve and what we're trying to understand using research. These include but are not limited to (in alphabetical order):

- **Desirability:** are there additional tasks they'd like to do and can't (especially for future features) or content they'd prefer to access in the future?
- **Findability:** Can they find something?
- **Functionality - interaction design:** can users successfully complete a task when testing out a feature in a product, and that users have 'just enough' information about a specific claim to self service (take action, have question answered etc.) but not too much information - and have a clear call to action to complete or a place to go if they need more information.
- **Knowability:** is copy easy to understand and take action on? Do they know what terms are, what the process is, what actions to take (i.e. when to upload a document?)
- **General background:** understand current pain points. This usually occurs in every session before we have any tasks to evaluate

¹ The term we use is usability testing - we are not doing 'user testing' because we're not testing users, we're testing the usability (and other aspects) of our product. Language matters, and inclusive language is essential here.

Apr-May Task List

From Discovery and Inception:

- Understand veteran expectations for an authenticated user experience (roadmap)
- Validate what claims features are most important to veteransUnderstand possible solutions of these claims features using wireframes, with veterans
- Determine whether the ability to download transcripts is important
- As time allows, test our hypotheses for other 2022 features

So as tied to this document (in no particular order yet):

- Appeals
- Roadmap validation
- Transcripts
- Mobile experience
- Location / Facilities
- Finding Help - phone numbers
- User Feedback
- Transfer to Live Agent

Parallel research tracks from now until Dec. 2021 (or Feb.), possibly all in same session - this would be shared with Charles


- Claim Status - conduct usability testing with free text turned off with 7 Veterans (and possibly Veterans with a disability) by November
- Location- conduct interviews and research with 7 Veterans (and possibly Veterans with a disability)
- Automated Content (Health Benefits and Disability) - validate that Veterans may have a bad reaction to automated content

Status of research work (in rough order of priority):

- Live Agent
 - Who owns the UI container? What does it take to have a seamless handoff within that container, testing and potentially turn that off before official launch and when is that launch?
- Automated Content:
 - Speaking to OCTO Health SMEs Meg/Aryeh/Facility - to arrange

- Claims - finishing up remaining new stories
 - Testing with location

To update

- BAH call center log analysis - waiting on
 - Should be ready Sept. 20th, can message Nathan for update. This will shape what utterances etc. we can use.
-  Claims 101 research and analysis
 - A place to put more of the process/details part - need to see if there's anything to incorporate. See also the [Discovery Inception Meeting Minutes](#) from when we met the teams
- Claims journey map
 - Rachel asked Mina at AdHoc - she's working on this but she's back Sept. 9th so we should message her then - might be done.
 - Shane reached out to Mina - says she hopes to be finished by 9/27, but is happy to speak with us anytime before then.
- Research planning (this doc) - in progress
 - Finish adding questions, hypotheses and metrics to each section
 - If we have research questions FROM the UI explorations Mural we should also add them to the research docs to make sure we ask Veterans.
 - Basically things highlighted in yellow are things to do. I've been iteratively working on this to at least have things for Dec. solidified
 - We could add this hypothesis structure to add below - we've started doing this but it might be valuable in terms of capabilities.
 - Because the research tells us... [a validated and cite-able research insight]
 - We believe that... [this high-level capability]
 - Will result in...[this outcome]
 - We will know this is successful if/when... [this outcome]
- Research Plan ([draft](#)) to submit to Perigean for first research study
 - **A goal will be to figure out what and when we want to test in the prototype**
 - Claims and appeals, location, automated content
 - Do we want to validate roadmap as well as claims etc.? (How complicated)?
 - Finish questions tied to Claims Flow Mural and redesigned claims experience
- **Survey call center staff**
 - We would work with Ahmed Kochaji and John Lundy to get this survey to happen
 - Content - See what folks know about what's being asked - even how they phrase queries? ←- waiting on Trish

- Understand how this differs from BAH's call center log analysis and timing - if we're wrapping up Claims determine timing for this
- Convey how this helps call center burden - short survey on:
 - Disability compensation (including claims based on special needs like an automobile or clothing allowance) ←- **main focus for scope**
- **Confirm if and when this is happening**

User Feedback

To evaluate and gather user feedback from the live version (to define if to use the current unauthenticated release) or the soon to be authenticated.

- Hypothesis: What is your hypothesis for this research
- Veterans will be able to find and interact with the Virtual Agent as it is currently displayed, and they will be able to complete their tasks through the answers from the Virtual Agent.

Veterans

- Research questions: What question(s) do you hope to be able to answer after completing this research?
 - How are users finding the chatbot?
 - What are they trying to do?
 - What do they do after they find their answer? (Do they close the window, do they go back to the chat bot?)
 - Do they answer the feedback naturally?
 - Are there currently pain points in the user journey?
 - What are the users expectations?
 - Do users who try the live agent, try to still get the answer from the chatbot? How would they prefer to get an answer?
- Success metrics and supporting data for hypothesis²
 - We will know we're successful when most people rate positively the chatbot.

Background

TBD

Tests

Probably unmoderated testing

Consider testing end to end journey (before and after interacting with the chatbot page)

Need to align with the team on how to make the site available for the users, since it is only open for 25%, probably to be set up in a staging environment.

Free tasks for users? Or focused tasks depending on findings from the chat transcripts?

Users with an open claim

Reactions of authentication process

Impressions from the claims

See the

Speak with developers.

Optimal to have a follow up survey - what tool?

For unmoderated if there is more than 9 people, coordinate with shane on how to conduct:

Distinct cohorts may be needed as there is a PRA limit how much of the public you can solicit.

Demographic groups of 9 people: 1 group hispanic, 1 group rural

Explore to have a separate URL for each group, or Each person in the group with personal token.

Run a survey, tools that was used before during Phase 1 was Optimal.

Follow up questions

Recommended to use SUS or another way to gather data on the rating of the Virtual Agent.

- Medallia as lack of customization is an issue.
 - Finally, thinking about what you just experienced:
 - Quality – Did you feel the feature was able to help you accomplish a task
 - Efficiency/Speed – Did you feel the feature was expediting/moving quickly and not a hindrance to resolution?
 - Simplicity/Ease – Did you feel the feature was simple and easy to understand/figure out?
 - Helpfulness – Did you feel the feature was helpful enough to influence chat/chatbot adoption?
 - Satisfaction – Did you feel satisfied with the overall functionality of the feature?
 - Trust – Did you feel confident and secure when sharing personal information through the Bot?
-

Validation of features based on data

Data Analyst from BAH is still analyzing and generating trends, there needs to be an alignment with him regarding this.

To evaluate and gather user feedback from the live version (to define if to use the current unauthenticated release) or the soon to be authenticated.

- Hypothesis: What is your hypothesis for this research

- To validate and explore further the roadmap from the findings from data analysis from the transcript, these can be found [here](#)

Research questions:

- TBD

Success metrics and supporting data for hypothesis³

- TBD

Background

The app was released on a beta basis, with only automated responses (non authenticated responses) on February 28th 2021. It was released to 25% of the VA.gov traffic. The conversations are recorded in Power BI and are being analyzed by BAH.

Tests

TBD

Follow up questions

- Finally, thinking about what you just experienced:
 - Quality – Did you feel the feature was able to help you accomplish a task
 - Efficiency/Speed – Did you feel the feature was expediting/moving quickly and not a hindrance to resolution?
 - Simplicity/Ease – Did you feel the feature was simple and easy to understand/figure out?
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 - Trust – Did you feel confident and secure when sharing personal information through the Bot?

Spanish and internationalization (follow up)

Background

As a follow up from [Spanish Speaking Veterans and the Virtual Agent Interviews](#), when it is prioritized it would be needed to get on solution mode. This research was complemented by this [Spike](#) with PVA possibilities.

About the users:

Key terms: Language proficiency - level or proficiency on a language

Preferred language - language of comfort of the user

Two bilingual users of spanish and english, can have different preferred language, as well as different proficiency levels of both languages.

When to approach bilingual without regard of English proficiency:

For usability tests in second language, where the interactions depend on language to be successful.

When to approach bilingual with low English proficiency:

For discovery interviews, in depth interviews, anything related to finding or discovering user needs, and pain points.

Hypothesis:

- Veterans with Low English proficiency have the same pain-points discovered during the previous research round, including:
 - Difficulty navigating the VA website.
 - Running into dead ends
 - Trouble knowing the correct vocabulary.
 - Dependant on other support.
 - Would use the chatbot in Spanish even if it redirected to English content.
- Solutions based on previous recommendations::

- i. Following the recommendations from the usability test, test if a Spanish speaking bot, that redirects you to content even if it is not in Spanish.
 - ii. How users switch and find the spanish/other language alternative
- Experience of other foreign / non- Spanish speaking groups
- Explore if this would be needed with the live agent.
-

Research questions:

- TBD

Success metrics and supporting data for hypothesis⁴

- TBD

Tests

Here is some [when and how to conduct bilingual user research](#), on how to run in a different language if the user researcher doesn't speak Spanish/the language to test.

Follow up questions

- Finally, thinking about what you just experienced:
 - Quality – Did you feel the feature was able to help you accomplish a task
 - Efficiency/Speed –Did you feel the feature was expediting/moving quickly and not a hindrance to resolution?
 - Simplicity/Ease – Did you feel the feature was simple and easy to understand/figure out?
 - Helpfulness – Did you feel the feature was helpful enough to influence chat/chatbot adoption?
 - Satisfaction – Did you feel satisfied with the overall functionality of the feature?
 - Trust – Did you feel confident and secure when sharing personal information through the Bot?

Appeals

Hypothesis: What is your hypothesis for this research

- Veterans often mention feeling a lack of visibility (no timely info?) into the appeals process. If we create a 'check your appeals status' in the chatbot Veterans will be able to gain visibility into where they are in the process, missing documentation and save time. We will know we are successful when we see an increase in customer satisfaction.
 - What data from VBA can help validate how Veterans feel re: lack of visibility? Need details on pain points re: visibility etc. - what do Veterans feel the problem is?

Success metrics and supporting data for hypothesis⁵

- We will know we're successful when we have people rating higher customer experience, etc.
-

Research questions: What question(s) do you hope to be able to answer after completing this research?

- Understand how appeals work - common reasons why they are denied, and how people might use the chatbot etc. to address those easy reasons for denial
- Understand common questions people might have about a decision so that we can understand how much the chatbot can be used to answer them as well
- Understand when we need to push users to an Appeals page on va.gov

- Hypothesis: (assume that a Veteran is going to search by ID or date - good to validate with testing. What's the unique identifier for a claim or are they going to assume a bot is going to know that without needing to interact for more details?)

⁵Metrics from Discovery/Inception or Product Outline

- Hypothesis: If Veterans need more information they'll be comfortable going to the appropriate va.gov page OR do we want to provide some of the FAQs?

- I.e.

<https://www.va.gov/resources/what-your-decision-review-or-appeal-status-means/> explains the terms used - do we want to include these as Q and A's

- Link to claim on a website - when would you click on the link? What information are you looking for when you transfer view the link - is it size of screen that prompts clicking on the link, or is there information you'd prefer to see in the chat bubbles instead?

- Have you appealed a decision from the VA? What was the reason?
- If you didn't appeal but disagreed with the results, what was the reason why you didn't appeal?
- Walk us through a recent appeal - what was it for and why were you appealing.
- How did you resolve it?
 - Called call center etc.
 - Did that resolve your questions?
- Did you understand all the terms about the appeals process? If no, where did you go to answer them?
- If you had questions about the process, where did you go to answer them?
- When you appealed a decision, what did you have to do?
- Where did you do the actions to appeal? (upload docs etc.)

- What worked about the appeals process?
- What didn't work?
- (After usability testing): Do you see yourself using the chatbot to do tasks related to appeals - why or why not? Would use it compared to other channels - why or why not?

Tests

TBD. See what BAH did for their prototypes

- Story: Display a single appeal's details / status
 - Hypothesis: Veterans want to see the date, reason for claim, and status when checking for status of a claim (to validate after speaking with Claims team - update for appeals. This assumes claims and appeals are the same - are they?)

Follow up questions

- Now that you used the tool, did you have enough information that you are able to identify that benefit or take action? Would you speak to a Live Agent - if so, why?
- Finally, thinking about what you just experienced:
 - Quality – Did you feel the feature was able to help you accomplish a task
 - Efficiency/Speed – Did you feel the feature was expediting/moving quickly and not a hindrance to resolution?
 - Simplicity/Ease – Did you feel the feature was simple and easy to understand/figure out?
 - Helpfulness – Did you feel the feature was helpful enough to influence chat/chatbot adoption?
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 - Trust – Did you feel confident and secure when sharing personal information through the Bot?

Roadmap validation

Purpose

This can be a 'card sort' like exercise, with name of features on a Post-It; this can be early on in the same session as claims. The [mobile team](#) did a cardsort at one point. Note if we test with 10 Veterans and they set a different order of what they think is valuable, should we pivot?

Hypothesis: What is your hypothesis for this research?

- "Veterans need a way to check their claims status and other common functions; if we create build this set of features in this order, Veterans will be able to get a quick update on their status, saving timing. We will know we are successful when we see Veterans not calling a call center.

Success metrics and supporting data for hypothesis

- Validation that we are building the right thing in the right order

Research

- Instructions
 - We're exploring what users want to do on the chatbot. We'd like you to place them in order of priority of things you want to see the chatbot - so the biggest problems you think the chatbot should address go first. If there are ones missing feel free to add, and then afterwards we'll discuss them.
 - Probe for claims status being the most valuable

For claims:

- | | |
|--|---|
| <ul style="list-style-type: none">• List all claims• Show a claim's status• Show a claim's type• Link to a claim on the Claim Status tool• Show who's my representative?• Show a claim's estimated date of completion | <ul style="list-style-type: none">• How long can I expect to be in a certain status?• List "Average processing time for claim type N is X days"• List if an exam has been scheduled for a specific claim• List user's disability rating• List evidence already provided |
|--|---|

- List requests for additional evidence
- Last payment
- Payment History
- List if an exam has been scheduled
- List of dependents on award letter accurate?
- Status of my VA Home Loan Certificate of Eligibility
- So looking at your top 5:
 - How many of these would you actively use on a chatbot?
 - Are there any of these you would not use via a chatbot? Why or why not?
 - Would you remember if the chatbot could do all of these?

Research questions to answer after completing this research

- Are these the right set of features to explore for the next year with the chatbot?
- Are these in the right order of priority - the right pain points to tackle?
- Is anything missing from this list?
- What is the most valuable and why?
- What are the least valuable features and why?

Transcripts

To note:

Kevin C. asked during Transcription session: 'would you like to be able to download their transcripts, and see how many clicked on it' before we invest in the UX for getting records;

Background

- IF they did download the transcript
 - Going back to the 'download transcript' functionality, we noticed you click on the download button to get a copy of your transcript. Why was that?
 - How would you use the transcript - what is the useful part to it? Is anything missing from it?
 - Probe for when and where they use it and how they'd store it
 - Would you download the transcript every time - why or why not?
- IF they didn't download the transcript
 - Going back to the 'download transcript' functionality, we noticed you didn't click on the download button to get a copy of your transcript. Why was that?
 - Probe for what is missing and not valuable?

Tests

TBD.

Follow up questions

Mobile experience

‘Chatbot on the go’

Hypothesis: What is your hypothesis for this research

- Mobile use of va.gov is rising; Veterans will be comfortable using their mobile device to complete certain tasks (i.e. check claims status) on the go using their mobile device
 - What is the problem mobile solves here. What does a chatbot solve that the mobile app doesn't address?
 - If we create a simple text-centric way to complete common tasks Veterans will be able to get quick updates and save time.

Success metrics and supporting data for hypothesis⁶

- Percentage using mobile as preferred channel?
- Add OCTO-DE metrics here

Research questions: What question(s) do you hope to be able to answer after completing this research?

GOAL: Understand those with inadequate mobile access- SMS 'vs. chatbot' - think through recruiting hurdles for this segment where they don't use Web because of paying for data on cell phone. For this, get Luciana's feedback on

Questions

- What kind of mobile device do you have?
- What do you currently use it for the most?

⁶Metrics from Discovery/Inception or Product Outline

- Thinking of tasks you'd complete on the go - that is away from your home or work computer - what are things you would do on your phone related to your life as a Veteran communicating with the VA, and why?
- What are tasks you would do on your phone and not the computer, and why?
 - Probe for size of screen, internet connectivity, privacy etc?

Tests

- More complicated claims status
- Location related

Follow up questions

- Add typical customer satisfaction ones
- Finally, thinking about what you just experienced:
 - Quality – Did you feel the feature was able to help you accomplish a task
 - Efficiency/Speed – Did you feel the feature was expediting/moving quickly and not a hindrance to resolution?
 - Simplicity/Ease – Did you feel the feature was simple and easy to understand/figure out?
 - Helpfulness – Did you feel the feature was helpful enough to influence chat/chatbot adoption?
 - Satisfaction – Did you feel satisfied with the overall functionality of the feature?
 - Trust – Did you feel confident and secure when sharing personal information through the Bot?
- Finally, thinking about what you just experienced:
 - Quality – Did you feel the feature was able to help you accomplish a task
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 - Trust – Did you feel confident and secure when sharing personal information through the Bot?

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Finding Help - phone numbers

Hypothesis: What is your hypothesis for this research

- Veterans will find it useful to use the chatbot to find a location because they can do x, y and z; If we share information about security in the UI (that their data is safe) Veterans will feel more comfortable using the product.
- “Veterans experience [this problem]; if we create this [feature to complete a task/address that problem], Veterans will be able to [experience benefit such as save time/gain visibility etc]. We will know we are successful when we see this [metric]

Research questions: What question(s) do you hope to be able to answer after completing this research?

- Do users find the chatbot a fast and easy way to look up a phone?
- Do users prefer using the chatbot over other channels to do this, specifically more than using the main va.gov site?
- As part of this, can validate with Veterans if the language for pushing people to VCL is fine
- Success metrics and supporting data for hypothesis⁷
 - Phone Numbers / Contact Points
 - i. Clickthroughs that open a phone dialer app
 - ii. # of missed (untrained) keywords (ex: phone number for Brooklyn VAMC)
 - iii. % of people that request a Live Agent
 - iv. % of people who indicate to the chatbot that this conversation flow was helpful
 - v. % of people in a conversation flow that request a Live Agent
 - vi. VA.gov pages with Chatbot as referrer
- Add OCTO-DE metrics here

Background

Tests

⁷Metrics from Discovery/Inception or Product Outline

TBD.

Follow up questions

To add

- Finally, thinking about what you just experienced:
 - Quality – Did you feel the feature was able to help you accomplish a task
 - Efficiency/Speed – Did you feel the feature was expediting/moving quickly and not a hindrance to resolution?
 - Simplicity/Ease – Did you feel the feature was simple and easy to understand/figure out?
 - Helpfulness – Did you feel the feature was helpful enough to influence chat/chatbot adoption?
 - Satisfaction – Did you feel satisfied with the overall functionality of the feature?
 - Trust – Did you feel confident and secure when sharing personal information through the Bot?
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Transfer to Live Agent

Confirm how this is built out to determine tests and tied to metrics!

Hypothesis: What is your hypothesis for this research

- Veterans become frustrated when they have to provide more information to a new channel; if we create the ability to pass the chatbot message onto a Live Agent, Veterans will be able to get a faster resolution to their problem. We will know we are successful when we see increased ratings for user experience.

Success metrics and supporting data for hypothesis⁸

- # of successful transfers
- # of transfers that were requested but not fulfilled (e.g. maybe all agents are offline)
- # of times the connection was interrupted
- The originating query that prompted the user to ask for a live agent?
- Add OCTO-DE metrics here

⁸Metrics from Discovery/Inception or Product Outline

Research questions: What question(s) do you hope to be able to answer after completing this research?

- See below
 - TBD - confirm how much of this is documented in Live Agent's product plan?
 - See BAH prototype
 - Finally, thinking about what you just experienced:
 - Quality – Did you feel the feature was able to help you accomplish a task
 - Efficiency/Speed – Did you feel the feature was expediting/moving quickly and not a hindrance to resolution?
 - Simplicity/Ease – Did you feel the feature was simple and easy to understand/figure out?
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-

Metrics

These metrics were identified in the product outline and will move to their appropriate section

- Engagement rates (for entire Phase 2 POV so not including in above per se)
 - How many users interact with the new virtual agent?
 - How many left without interaction?
 - How many users ask multiple questions in one session?
 - How many ask the same question (in variations) during one session?
- Satisfaction rates (to move above in each section)
 - How many times was the virtual agent able to answer a question?
 - How many times was it not able to answer a question?
 - How do veterans feel about the interaction? (feedback)
 - What could be improved?
 - Are they likely to use this again?
- Perceived human-requirements (to move above in each section)
 - How many users directly ask to speak with a human (e.g., phone number) ?
 - How many still want to speak with a human after an interaction?
 - How many posed a crisis-related statement/question?
- Content requests (for entire Phase 2 POV so not including in above per se)

- What are the most asked about topics by users?
- What types of tasks did users ask the bot to do?

OCTO-DE General Metrics

- Veterans and their families can apply for all benefits online
- Veterans and their families can find a single, authoritative source of information
- Veterans and their families trust the security, accuracy, and relevancy of VA.gov
- Veterans can manage their health services online
- VFS teams can build and deploy high-quality products for Veterans on the Platform
- Logged-in users have a personalized experience, with relevant and time-saving features
- Logged-in users can update their personal information easily and instantly
- Logged-in users can easily track applications, claims, or appeals online

OCTO-DE Measures to increase

- Completion rate of online transactions
- Percent of applications submitted online (vs. paper)
- Veteran satisfaction with VA.gov
- Benefit use and enrollment, across all business lines
- Benefit value (in \$) delivered from online applications or transactions
- Number of VA.gov users as a function of total Veteran population
- Usage of digital, self-service tools

OCTO-DE Measures to decrease

- Time to successful complete and submit online transactions
- Time to process online applications (vs. paper)
- Call center volume, wait time, and time to resolution
- Time from online benefit discovery to benefit delivery

Outstanding questions

- Research:
 - What is our point where we don't need research to validate - how many interviews is enough for validation of hypotheses?
 - interviews plus call center transcript analysis, plus previous BAH work?
 - If we conduct research, when will we make recommended changes?
 - Do we need to break things up more specifically by types of users?
 - New Veterans, not yet filed a claim - What onboarding to resources at the VA do they get?
 - Vets with existing claims or appeals - See which they follow up on claims tool, or do we not focus as much on the tasks of specific personas?
- What will we use for testing?

- During Discovery, we discussed during CFRs that we wanted to validated with real users in their native devices, locations - need to ensure that. Would using a third part tool allow an accessible prototype for us?
 - Considerations: Functionality: creating prototypes, ease of sharing prototypes, Ability to mock complex content inline, integration with Bot Framework. Also features in our roadmap.
 - Options
 - 3rd party tool like BotSociety or BotMock
 - Stick with PVA and port over to BotFramework (BAH also used PVA...) ← yes, build something via PVA they test. Where will this live on va.gov?
 - BotFramework?
- What and when - One High level timing from Ian.

Completed research

Probably not all questions or scenarios were covered during their corresponding research

Authentication

Tasks:

- Discussion of types of auth:
 - <https://github.com/department-of-veterans-affairs/va.gov-team/blob/master/products/va-mobile-app/product/significant%20decisions.md#decision-8-only-users-with-logon-credentials-at-level-of-assurance-loa-3-will-be-allowed-to-use-the-app>
- Clarify what about authentication we need to understand or validate in usability testing
 - Before research, need to understand what can be customized in the auth experience - if nothing, perhaps we delete this as a research topic. - waiting on Hide bot if not authenticated #245 results
- The exception is accessibility - is there a way to make auth accessible?

Hypothesis: What is your hypothesis for this research⁹

⁹ Hypotheses will largely fall into: "Veterans experience [this problem]; if we create this [feature to complete a task/address that problem], Veterans will be able to [experience benefit such as save time/gain visibility etc]. We will know we are successful when we see this [metric]"

This hypothesis admittedly needs work as I'm not sure what we need to validate around auth

- Some Veterans may be reluctant to authenticate because of trust; if we create an easy to authenticate experience so they can benefit from a personalized experience. If we share information about security in the UI (that their data is safe) it will result in Veterans able to save time checking their benefits status and feel comfortable because we'll be transparent about data use. We will know this is successful if/when... [this outcome]
- Sharing information looks like:
 - Link to privacy policy
 - Make auth easy to use
 - Once authenticated, a message saying 'this chat is secure'
- We're uncertain what the auth experience (using BotFramework) is like for users. How might we create the most easy to use experience for auth?

Success metrics and supporting data for hypothesis¹⁰

- % of login abandons on pages where the chatbot is located and is requesting authentication
- Any from OCTO? Couldn't identify any others

Research questions: What question(s) do you hope to be able to answer after completing this research?

- When you use va.gov, how often do you authenticate - that is, sign on?
- How comfortable do you feel with auth - why or why not?
 - If they say uncomfortable: What are your concerns with authentication? How the VA uses their data, or if the data they are capturing is too sensitive (i.e. BAH research on not using full social security numbers)
 - Would a link to privacy policy etc. help? Think of the hypothesis to validate here. Are existing privacy something users engage with?
 - Have you read any of the links the VA has about privacy policy? Does doing this help reassure you?
- When you authenticate, what are the top 3 things you do on va.gov, myhealthvet or any other VA app where you authentica.

Tests

TBD. See what BAH did for their prototypes?

¹⁰Metrics from Discovery/Inception or Product Outline

Follow up questions

- How was that experience? Was it clear what you needed to do?
 - Do you feel comfortable authenticating when using the chatbot - why or why not? Do you have any concerns about privacy?
 - Probe for:
 - Link to privacy policy - did they see it? Did that help them trust?
 - Make auth easy to use - did they feel it was easy to do? Did they feel they could trust the product more?
 - Once authenticated, a message saying 'this chat is secure' -did they see it? Did that help them trust?
 - Would you feel comfortable authenticating on va.gov but not on the chatbot - why or why not?
 - Do you feel comfortable only seeing the chatbot when authenticated?
 - Hypothesis: Veterans will be ok with needing to authenticate if there is info on how the VA uses their data
 - Secondary hypothesis: Veterans will be ok with authenticating if it provides a better user experience with the bot (i.e., it can easily answer questions, provide quick time-saving actions, and ask the Veteran questions based on their authenticated info to provide useful suggestions about their benefits or other needs)
 - How do folks with cognitive impairments/challenges feel about this experience?
 - Finally, thinking about what you just experienced:
 - Quality – Did you feel the feature was able to help you accomplish a task
 - Efficiency/Speed –Did you feel the feature was expediting/moving quickly and not a hindrance to resolution?
 - Simplicity/Ease – Did you feel the feature was simple and easy to understand/figure out?
 - Helpfulness – Did you feel the feature was helpful enough to influence chat/chatbot adoption?
 - Satisfaction – Did you feel satisfied with the overall functionality of the feature?
 - Trust – Did you feel confident and secure when sharing personal information through the Bot?
-

Display a single claim's status

Hypothesis: What is your hypothesis for this research

- Veterans experience problems not knowing key information about claims such as the status of their claim, or actions they need to complete for a claim. If we create an ability to check claims status and complete common tasks (i.e. check disability rating etc.), Veterans will be able to engage in self-service behavior, saving them time. We will know we are successful when we see users indicating they don't need to speak to a Live Agent or call center by phone

Success metrics and supporting data for hypothesis

- % of people in a conversation flow that go to Claims Status Tool
- % of people in a conversation flow that request a Live Agent
- % of people who indicate to the chatbot that this conversation flow was helpful (i.e. they had the info they needed)
- OCTO-DE General Metrics (strike through indicates not applicable)
 - ~~• Veterans and their families can apply for all benefits online~~
 - Veterans and their families can find a single, authoritative source of information
 - Veterans and their families trust the security, accuracy, and relevancy of VA.gov
 - ~~• Veterans can manage their health services online~~
 - ~~• VFS teams can build and deploy high-quality products for Veterans on the Platform~~
 - Logged-in users have a personalized experience, with relevant and time-saving features
 - ~~• Logged-in users can update their personal information easily and instantly~~
 - Logged-in users can easily track applications, claims, or appeals online
- OCTO Measures to increase
 - Completion rate of online transactions
 - ~~• Percent of applications submitted online (vs. paper)~~
 - Veteran satisfaction with VA.gov
 - Benefit use and enrollment, across all business lines
 - Benefit value (in \$) delivered from online applications or transactions ← TBD
 - Number of VA.gov users as a function of total Veteran population ← TBD
 - Usage of digital, self-service tools
- OCTO Measures to decrease
 - Time to successful complete and submit online transactions ← TBD
 - ~~• Time to process online applications (vs. paper)~~
 - Call center volume, wait time, and time to resolution ← TBD (hard to measure but ideal)
 - ~~• Time from online benefit discovery to benefit delivery~~

Research questions: What question(s) do you hope to be able to answer after completing this research?

- Understand problems with current claims process and how the chatbot can help.
- Validate if we've captured the right content for a single claim
- Validate if a guided experience (buttons) is acceptable rather than free text
- Validate if smaller scope for Claims (ONLY open claims and appeals compensation - anything else is pushed to Claims Status Tool) is permissible.
- Validate anything else from flow

([Individual research plan here](#))

Background

- Have you submitted a claim? Which of the following benefits and claims have you submitted?
 - Burial allowance to help pay for a Veteran's burial and funeral expenses
 - Dependency and Indemnity Compensation (DIC)
 - **Disability compensation (including claims based on special needs like an automobile or clothing allowance) ←- main focus**
 - GI Bill or other education benefits
 - Home loan Certificate of Eligibility (COE)
 - Veterans or Survivors Pension benefits
 - Special monthly compensation (such as Aid and Attendance)
 - Specially Adapted Housing (SAH) or Special Housing Adaptation (SHA) grant
 - VA health care
 - Veteran Readiness and Employment (VR&E)
 - Something else (add name)
- How do you currently check the status of a claim?
 - Web:
 - [Check Your VA Claim Or Appeal Status](#)
 - IRIS/Ask VA
 - Phone
 - Mobile
 - [VA Health and Benefits app](#)
 - In person:
 - VA facility, [Veterans and Military Service Organizations](#),
 - Third party apps
 - [VetsApp](#) - any others?
 - Other
 - I don't check (probe for why)
- Have you called the VA call center? If so, what were you calling about?
 - Claims status? Facilities?

- Do you use the Claims Status tool on va.gov?
 - Was your experience positive or negative and why - and if not using it, why not?
 - Didn't know about it
 - Didn't find it useful (and why - inaccurate, functionality etc.)
 - If they had a positive experience, would they keep using it rather than a chatbot
 - Etc.

- Do you use the same method to check status every time? Why did you choose that method?

- How do you hear about new things like new products at the VA - how did you learn about the best methods (i.e. do people use the welcome guide, do they try out different methods?) (Probe for finding out where people find out about tools re: people not knowing about the Claims Status Tool)

- When you're looking for claims status, for example, what information do you expect to see on the screen and in what order?

- How often do you check the status? Do you need a trigger to do it? What prompts you to?

- What are some of the common tasks/things you do related to claims and appeals?
 - Upload docs, schedule exam etc.?

- Do you use paper to manage the process - print things out, write them down? Is that something that works for you?

- How well do you understand the terms used - i.e. on <https://www.va.gov/resources/what-your-claim-status-means/> How long did it take before you felt you understood the claims process? What resources helped you get familiar?

- What works for the way you check the status of your claims today?

- What doesn't work? (probe for specifics - WHAT is actually missing)
 - Missing data?
 - Inaccurate data?
 - Incomprehensible data/content you don't understand ('Release 1')
 - Out of date data (lack of updates)
 - Conflicting data
 - Other?
- What do you do to resolve the issue?
 - (i.e. call call center?) Does that resolve the problem?
 - When would you want to speak to a human agent? Do you use the FAQs for benefits and claims (or va.gov) to resolve issues?
 - I.e. [What Your Decision Review Or Appeal Status Means](#)
- If there are multiple claims outstanding, how do you need to be able to navigate between them? What's the unique identifier between them?
 - Note Shane said no claim ID - just SSN
 - Claims demo:
 - <https://github.com/departments-of-veterans-affairs/va-virtual-agent/issues/108>

Tests

- Find an open claim
- Verify if they understand type of claim
- (General usage?)
- Additional tied to scope of first session (appeals, all open compensation list...?)

Follow up questions

- What was the experience like - what worked, what didn't work
 - Could use the [System Usability Scale](#) here or just keep it general tied to if they were able to successfully complete a task
- What were you expecting to see?
 - Did you expect to see all claims or only open compensation claims?
 - We're only able to deal with VBA claims - was that clear? Is this still useful even with just that?

- Context Retention: Assumption is that it's very likely that a user will say "why?" mid-bot conversation.
 - Did you want to ask the bot 'why'? Why or why not?
 - Did that shape the context retention - were you able to keep track of where you were in the conversation?
 - May be more for accessibility testing

- Content: The chatbot included information about things like 'Your representative for claims'. Is there the right information to complete your tasks/be informed? Is any of this extra information? Is any of the content something you'd prefer to see elsewhere (like the Claims Status tool)

- Functionality:
 - The chatbot presented a lot of buttons to choose rather than needing you to type into the message box. How was your experience with that?
 - Is it acceptable that this is just checking claims status but not uploading docs, etc.?

- If the chatbot gave you your claim status, would you use it over your current preferred channel - why or why not? When would you use the mobile app or the chatbot?

- What would the benefits of using the chatbot be for claims status? (i.e. faster/reduced time, easier to do on the go etc.?) Are there things you would do on the chatbot? Are there things you wouldn't do (and why?)

- Location:
 - Where would you expect to see the chatbot?
 - Say the chatbot was on the Claims Status Tool page (<https://www.va.gov/claim-or-appeal-status/>) - given the choice would you use the chatbot or the Claims Status Tool or something else?
 - Say the Live Agent/'speak to a human' was on the claims status page instead of the chatbot - given the choice, would you use the Claims Status Tool, the Live Agent, or something else.
 - If the chatbot was only accessible on the Contact page, would you remember it lived there? If it was on one of the benefits pages?
 - Imagine that the Virtual Agent is on the Claims Status page, would you ask the chatbot for clarification on what they're seeing on the page? If so, what would you expect to see?

- Finally, thinking about what you just experienced:
 - Quality – Did you feel the feature was able to help you accomplish a task
 - Efficiency/Speed – Did you feel the feature was expediting/moving quickly and not a hindrance to resolution?
 - Simplicity/Ease – Did you feel the feature was simple and easy to understand/figure out?
 - Helpfulness – Did you feel the feature was helpful enough to influence chat/chatbot adoption?
 - Satisfaction – Did you feel satisfied with the overall functionality of the feature?
 - Trust – Did you feel confident and secure when sharing personal information through the Bot?
-

List of claims and appeals

INTERNAL:

Need to figure out how to interact with that list - so we can figure out what tests to create, and if we're testing this in the same session as individual claims

How much of the metrics and hypothesis differ for claims vs. appeals?

Background

- Have you had multiple claims and appeals at the same time?
- How many claims and appeals do you usually have?
 - Is a list going to be sufficient or is the ability to filter open/closed useful?
 - How far back do you want to view previous claims? Would you prefer to view that on the va.gov site? If so, why? (probe for ability to filter)
 - If so, are there any concerns of remembering what you can do/tasks where?
- Managing a claim or appeal?
 - Would you want to upload documents etc in the chatbot, or go to the accompanying va.gov page? Why or why not?
 - [Choosing A Decision Review Option](#)

Add additional questions for appeals?

Tests

TBD. See what BAH did for their prototypes

Follow up questions

- What was the experience like for seeing your list of claims? Did you understand the difference between them?
 - [More here](#)
-

Automated Content

Hypothesis: What is your hypothesis for this research?

- The priority for Veterans+ is up to date accurate data for automated content (i.e. claims status) rather than having additional content that needs content writing, as mentioned during phase 1 in our interviews with Veterans. If we focus on showing the content of their claim and not focus on original content creation, Veterans will find this a pleasant experience. We will know we will know we are successful when we see positive customer satisfaction ratings.

Success metrics and supporting data for hypothesis¹¹

- Satisfaction rates
 - How do veterans feel about the interaction? (feedback)
 - i. What could be improved?
 - ii. Are they likely to use this again?

Research questions: What question(s) do you hope to be able to answer after completing this research?

¹¹Metrics from Discovery/Inception or Product Outline

- Is automated content is useful for Veterans - specifically health (<https://www.va.gov/health-care/>) disability (<https://www.va.gov/disability/>) and eligibility and enrollment?
 - This will drive how much training we would need to do for the intents/entities.
 - Perhaps show 2 versions - one with more raw data, minimal content writing, one with more content writing
 - What's creating friction for Veterans in the process of identifying their health eligibility, how to enroll -- and how reliable is our current [Va.gov](https://www.va.gov/) content in helping them unblock these? What are the limitations of current state of content?
 - Identifying health eligibility and enrollment experience and what can be automated (check with Devs on how hard it is to get that content - was easy to automate in phase 1?)

Background

- Where do you go to find information on health and disability around eligibility and enrollment as a Veteran
 - Va.gov
 - Word of mouth (i.e. other Veterans etc.)
 - Social media (Reddit etc.)
 - Call center
 - VSOs
 - Other
- What are the challenges you face around identifying your eligibility and enrollment?
 - Can't find information (too much content to go through)
 - Information is confusing and doesn't answer questions
 - Missing data
 - Inaccurate data?
 - Incomprehensible data/content you don't understand ('Release 1')
 - Out of date data (lack of updates)
 - Conflicting data
 - Other?
- How do you address those challenges
 - Call call center - easier to speak to a person

Tests

TBD - have them enter in a health related question BUT make sure it's one we have ready

Follow up questions

- The content had just the facts about the claim and no supporting language like a typical chatbot ('here is your information'). Now that you've viewed the content, tell us about the experience:
 - How many times was the virtual agent able to answer a question?
 - How many times was it not able to answer a question?
 - How do veterans feel about the interaction? (feedback)
 - Is minimal language for automated content acceptable? Did this feel robotic or impersonal?
 - Is automated content actionable enough - do you have enough information to take follow up action?
 - What could be improved?
 - Are you likely to use this again?
 - Do you still want to speak with a human after this? Why?
 - Finally, thinking about what you just experienced:
 - Quality – Did you feel the feature was able to help you accomplish a task
 - Efficiency/Speed – Did you feel the feature was expediting/moving quickly and not a hindrance to resolution?
 - Simplicity/Ease – Did you feel the feature was simple and easy to understand/figure out?
 - Helpfulness – Did you feel the feature was helpful enough to influence chat/chatbot adoption?
 - Satisfaction – Did you feel satisfied with the overall functionality of the feature?
 - Trust – Did you feel confident and secure when sharing personal information through the Bot?
-

Location

Speak to Facilities team re: location API. See

also: <https://github.com/departement-of-veterans-affairs/va.gov-team/blob/master/products/facilities/medical-centers/discovery/health-connect-discovery.md>

Goal:

- Understand what's the problem with the Facility - to move it to Tier 1. Is there something missing with content on the pages, or the functionality (of something they want to do), or is that they don't use the tool (or can't find it)
- What research has the facilities team done that we can leverage

Hypothesis: What is your hypothesis for this research

- Veterans experience a challenge around not having a fast way to find a VA location or see what services are at a VA location; if we create a channel that quickly shows locations and services offered there Veterans will be able to quick save time than having to hunt on the va.gov for this. We will know we are successful when we see this positive satisfaction scores/

Success metrics and supporting data for hypothesis

- % of people who indicate to the chatbot that this conversation flow was helpful
 - % of people in a conversation flow that request a Live Agent
 - VA.gov pages with Chatbot as referrer
- Locations
 - Clickthroughs to actual facility link
 - VA.gov pages with Chatbot as referrer
- OCTO-DE General Metrics
 - ~~Veterans and their families can apply for all benefits online~~
 - ~~Veterans and their families can find a single, authoritative source of information~~
 - Veterans and their families trust the security, accuracy, and relevancy of VA.gov
 - ~~Veterans can manage their health services online~~
 - ~~VFS teams can build and deploy high quality products for Veterans on the Platform~~
 - Logged-in users have a personalized experience, with relevant and time-saving features
 - ~~Logged-in users can update their personal information easily and instantly~~
 - ~~Logged-in users can easily track applications, claims, or appeals online~~
- - OCTO-DE Measures to increase
 - Completion rate of online transactions
 - Percent of applications submitted online (vs. paper)
 - Veteran satisfaction with VA.gov
 - Benefit use and enrollment, across all business lines
 - Benefit value (in \$) delivered from online applications or transactions

- Number of VA.gov users as a function of total Veteran population
- Usage of digital, self-service tools
-
- OCTO-DE Measures to decrease
- Time to successful complete and submit online transactions
- Time to process online applications (vs. paper)
- Call center volume, wait time, and time to resolution
- Time from online benefit discovery to benefit delivery
 -

Research questions: What question(s) do you hope to be able to answer after completing this research?

- Do users find the chatbot a fast and easy way to look up a location?
- Do users prefer using the chatbot over other channels to do this, specifically more than the Find a VA location on va.gov? Are Veterans struggling with our facility-locator tool? If so, why

Background

- Current behavior for find a location:
 - How do you normally find a VA location?
 - va.gov, phone, other
 - What information are you looking for when you want to find a location?
 - Hours, location, services offered?
 - How often are you looking for a location - is it the same one every time?
 - Where are you when looking for a location - are you away from home?
 - After you've found a location, what do you do?
 - Prompt for how they save it - take a picture of it, add it to a doc, save it in address book, email it, share it etc.
 - is someone going to want to send an address to google maps from this view

- Prompt in test to see when they click on the link to go to the va.gov location finder - ask why they needed to go to the page? How often are they looking for a location?
- What works when looking up a location?
- What are current challenges with finding a location?
- General question: would you use the chatbot in the future to look up a location and if so, what would you use it for or expect it to do?

Tests

TBD.

Follow up questions

- Finally, thinking about what you just experienced:
 - Quality – Did you feel the feature was able to help you accomplish a task
 - Efficiency/Speed – Did you feel the feature was expediting/moving quickly and not a hindrance to resolution?
 - Simplicity/Ease – Did you feel the feature was simple and easy to understand/figure out?
 - Helpfulness – Did you feel the feature was helpful enough to influence chat/chatbot adoption?
 - Satisfaction – Did you feel satisfied with the overall functionality of the feature?
 - Trust – Did you feel confident and secure when sharing personal information through the Bot?

Accessibility and inclusive design

- [Section 508](#) compliance ([WCAG 2.0](#) Level A and AA) -- is the responsibility of each individual VFS team.
- [WCAG 2.1](#) guidance will now be applied in Collaboration Cycle reviews.

<https://github.com/department-of-veterans-affairs/va.gov-team/blob/master/platform/accessibility/508-checklist.md>

Is this in scope (i.e. testing with Veterans with a disability) for phase 2?

Hypothesis: What is your hypothesis for this research TO UPDATE

- Veterans will experience accessibility challenges...? Is there a 'positive' hypothesis here rather than PVA is inaccessible?
- Veterans who experience a lack of connectivity may prefer to use a chatbot (with a minimal UI) compared to the full va.gov experience?
 - i. Or would they prefer a SMS at that point?
 - ii. "Veterans experience [this problem]; if we create this [feature to complete a task/address that problem], Veterans will be able to [experience benefit such as save time/gain visibility etc]. We will know we are successful when we see this [metric]
-

Research questions: What question(s) do you hope to be able to answer after completing this research?

- How accessible is this project?
-

Determine when we do testing with Blind Veterans - must be testing with fixed product

- How do we help practice Trauma Informed Design - what do we need to know about vulnerable populations for phase 2 and how they'd use the product?([link to source](#))

Underserved Veteran Communities

- 50% of Veterans are above the age of 60
 - 30% of Veterans have an identified disability (likely underestimated)
 - 26% of Veterans are racial minorities
 - 25% of Veterans live in rural areas
 - 25% of Veterans do not have undergraduate degrees or professional certificates
- Discuss authentication with screen reader

- What is experience like - does it announce the right things to authenticate? Are users confused in the existing current state, and what should be avoided when we get to the chatbot?
 - <https://github.com/department-of-veterans-affairs/va-virtual-agent/issues/108> - with demo of auth
 - Are workarounds possible - if they encounter a problem, what do they do?
 - Validate existing WCAG standards ([va.gov](https://www.va.gov)) of whatever we build - some of the areas to test here
 - What tasks around benefits and claims from above?
-
- What resources are you looking for (as a person experiencing challenges) and how do you find them?
 - What places within the VA do you go to for assistance
 - Bring list from above of channels?
 - (i.e. would they use chatbot over VSOs etc.)
 - Continued accessibility testing - perceivable, operable, understandable, robust etc. (questions from phase 1) here
-
- Success metrics and supporting data for hypothesis¹²
 - We will know we're successful when we have this outcome...
 -

¹²Metrics from Discovery/Inception or Product Outline