

Virtual Agent Phase 2 Product Outline

Problem Statement

As stated in our Phase 1 Product Outline, the problem we want to solve with our virtual agent is to help the Veteran self-serve and find information more easily. This still holds true, but through the Phase 1 Proof of Value (PoV) we were able to validate many of the assumptions we had about whether veterans would use a chatbot, what they would ask it, what they would use it for, and how it should behave.

Through our key findings in Phase 1, we now have a more sophisticated understanding of what the production virtual agent on VA.gov will look like and how it will be managed:

- Veterans indicated that having an authenticated experience was important to them in order to provide a personalized experience.
- Content creation in Phase 1 was time-consuming, had poor version control mechanisms, and required extensive coordination. During Phase 2 we want to test whether displaying existing VA.gov articles in a non-conversational format would be acceptable to virtual agent users.
- Our research indicated in Phase 1 that claims and appeals, and facility information were all things veterans wanted a chatbot to be able to handle or answer. During Phase 2, we will begin working with the VFS owners of these capabilities and see what it would take to integrate with the chatbot. These initial forays will allow us to learn the best way to work with other teams to implement all the various features veterans are looking for in a chatbot.
- Finally there are several process related questions that need to be answered before a fully fledged virtual agent can go live on VA.gov. A myriad of privacy and security questions need to be worked through. How the chatbot will handle crisis situations needs to be addressed. More research is required especially amongst the underserved, underrepresented populations we were unable to fully recruit for in Phase 1. Conversations need to begin with the Omnichannel Team in order to ensure the user experience between the Virtual Agent and Live Agent (and other eventual channels) is seamless. There are unanswered technical questions regarding our recommended platform of Microsoft Bot Framework, and the accessibility and reporting capabilities of the tool.

We hope by addressing all these open questions, risks, and challenges early in Phase 2, that we will set ourselves up for success later in the project.

Proposed Solution: Continued Research, PoV Leading to a Pilot

1. Research & Discovery - 2021: Validate some of our Phase 2 claims hypotheses by conducting user interviews.

In order to begin testing an authenticated user experience, using input from claims teams and BAH research, we will test our claims hypotheses by conducting user interviews to understand current state challenges and explore potential solutions.

Additionally, we want to check with our veterans whether the ability to download a transcript of their interaction is valuable, in preparation for future features such as handing off transcripts to Live Agent.

Goals for Research and Discovery:

1. Understand veteran's expectations for an authenticated user experience
2. Validate what claims features are most important to veterans
3. Accounting for feasibility, understand possible solutions of these claims features using wireframes, with veterans
4. Determine whether the ability to download transcripts is important
5. As time allows, test our hypotheses for other 2022 features

2. Pilot Release 1 - Late February 2022: Release an unauthenticated chatbot experience to VA.gov with the Automated Content feature

This pilot will release the chatbot to production for a percentage of users, allowing us to gather feedback on the Automated Content feature. This will surface selected, unedited VA.gov articles pulled from Drupal via an automated pipeline we will create.

Goals for the Release:

1. Pilot the technology and processes required to support a chatbot in production
2. Successfully deploy the chatbot to VA.gov production
3. Gather feedback on overall chatbot impressions and additional feature requests
4. Test whether users find the select VA.gov articles being presented to them are valuable
5. Determine what other things they are asking and what articles would answer those questions
6. Ensure all blockers preventing us from going live during the Pilot are addressed
 - Reporting
 - 508 Accessibility issues
 - ATO and conversational costs considerations
7. Chatbot handles crisis situations in the manner to be determined

3. Pilot Release 2 - Late April 2022: Release an authentication feature to the chatbot along with the ability to view open compensation claims and appeals

The phase will allow chatbot users to authenticate themselves in the cases where we need to know who they are in order to present personalized information. This will be the case when we allow users to check their compensation claims and appeals status via the chatbot.

Goals for the Release:

1. Test that the authentication process, and the subsequent accessing of the chatbot, is seamless to the VA.gov user experience.
2. Test that users find the claims and appeals data that we can surface to them is useful
3. Gather feedback on chatbot use

Virtual Agent Phase 2 Features:

1. All features available in the Phase 1 chatbot including how crisis situations were handled
2. All custom content written for Phase 1
3. Additional custom content written for Phase 2
4. Some compensation claims and appeals interactions
5. Ability to surface content from VA.gov sources in an automated manner
6. Handling of Veteran Crisis scenarios
7. Reporting to assess chatbot performance

Assumptions

- Our various stakeholder partners will be able to address any open security, privacy, and data retention concerns in a timely manner
- Because of per-conversation cost issues, we may need to lower the % of traffic who are able to see the chatbot, or link the bot to a less trafficked page like Contact Us to reduce impact to cost
- Perigean will be able to recruit for the populations we were unable to talk to in Phase 1

Measuring Success

During Phase 1, most of the KPIs we wanted to track were not captured by PVA's own internal reporting tools. Much of our analysis resorted to manual tallying by examining chat dialog transcripts, and even then this data provided by Microsoft proved to be unreliable (e.g. Microsoft indicating there was no interaction when in fact there was). We are working with Microsoft to clean up their data, looking into building our own custom reports using Microsoft PowerBI, and understanding the capabilities of Microsoft Bot Framework if we go that route.

These Phase 1 KPIs, assuming we are able to clear the hurdles mentioned above, still hold:

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

Additionally, we've identified these Measures of Success tied to the specific features we are exploring in Phase 2:

- Authentication
 - % of login abandons on pages where the chatbot is located and is requesting authentication
- Claims
 - % of people in a claims flow that request a Live Agent
- Content
 - % 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

Things we've learned

See Phase 1 Final Report -

<https://github.com/departement-of-veterans-affairs/va.gov-team/blob/master/products/virtual-agent/virtual-agent-POV-final-report.pdf>

See Phase 2 Discovery & Inception Readout -

<https://github.com/departement-of-veterans-affairs/va.gov-team/blob/master/products/virtual-agent/virtual-agent-discovery-inception-phase2-readout.pdf>

Milestones

- *Pilot Release 1 - February 28, 2022*
- *Pilot Release 2 - April 30, 2022*

Key Decisions

1. STYLE GUIDE: Content Team will add a separate complementary section in the Style Guide for chatbot (e.g. a Chatbot checklist, "Here's what to think about when writing Chatbot content.")
2. TRANSCRIPTS: For 2021, Virtual Agent can focus on understanding compliance requirements and the possibility of adding something lightweight to our POV to get data on if a feature would be used/beneficial. That would inform us if it's a full fledged feature we should add to our 2022 deliverable. And from the program perspective, if we should have feature parity in Live Agent.
3. Chatbot will not address multi-language support in Phase 2