

Product Concept: Better Document Submission

November 2024



What is the problem?



Submitting documents is a critical part of the benefits application



Mobile-friendly solutions that are almost but not quite there

Benefit agencies increasingly recognize that applications should be mobile friendly. Since 2019 there has been a 25% increase in mobile responsive benefits applications. As of 2024 [69% of online benefits applications were mobile accessible](#).

Still, mobile-accessibility does not mean the application process is wholly able to be completed on a phone. Beneficiaries may still be asked to submit documents as .PDFs or as a .doc/x when submitting photos of documents (i.e. as .jpeg, .png, .HEIC) is the most intuitive way to send a document using a phone.

Humans in the loop are critical access enablers

Benefits applications are known for their complexity. In the top two reasons for denials is [failure to complete an administrative step](#), i.e. a missing verification document.

Administrators and caseworkers are key to closing this gap. They support applicants in navigating complex language in benefits applications, understanding what documents to submit, identifying when key information is missing, and continuously following-up.

But improving document submission for beneficiaries still leaves administrators with significant document processing burden



More time doing computer tasks

Once digitally submitted documents are received by an agency they need to be processed and routed to the next step in the application process.

Document processing requires extracting data from a digital document file and inputting that data into a document manage system.

This process is still largely manual. Some agencies have access to OCR technology to streamline this work. But the most common tools in use are optimized for PDFs, not image file types (.jpeg, .png, .HEIC) that would be most common for mobile document submissions.

Means less time for human tasks

Administrator review and troubleshooting is critical to both running the benefits application process end-to-end and building public trust in it.

Over all of our interviews we heard the most persistent need was getting to accurate decisions faster.

There is no shortage of complex problems that require an administrators' time and experience to untangle.

Streamlining as much of the data ingestion process as possible so administrators can focus on making decisions with that data lies at the root of a desirable solution in the document space.

So why can't the problem be solved today?



Procurement makes small updates hard

The way most government agencies approach technology modernization prioritizes large system-wide changes over smaller upgrades to tooling.

Procurement processes reinforce this trend as significant effort is required to implement a tool. This means a significant amount of effort (time, advocacy, paperwork) will be required for any system changes, which incentivizes focusing on “on-fire” issues as opposed to modular time-saving upgrades.

Testing is a critical advocacy tool that market solutions lack

Often the final decision maker or purchaser is not the one who initiates a tool or system update, it is an administrator advocate who often sits in between systems and people. What helps them most in pitching a new tool is showing it works. That's hard to do with commercial tools as they have relatively short trial periods, may not be approved for use (i.e. FedRamp-ed), and the best tools require a good deal of technical expertise to use.

Problem Statement



How might we better enable applicants to submit documents digitally and streamline the processing burden for staff as part of an application process?

Product Statement



The simplest product we could build that provides value is a mobile-first tool that is able to process images of documents into usable data and can be implemented as a component alongside existing workflows.

User needs



For Applicants

- **Need to submit digital documents** as part of an application process, often to prove identity, income, citizenship etc..
- **Heavily reliance on cell phones** to access the internet and navigate application processes.
- **Taking a photo with a mobile device**, is the easiest way to transform an analog document into a digital file is by t

For Processing Staff

- **Need to access, identify, and review documents** submitted by applicants.
- **Want to transform standard file formats (pdfs, images) into machine readable data** that can be transferred into their existing systems in a way that enables rapid and accurate decision making.

Validation Research



Proposal for next steps

Research Phase

Problem

Solution

Educated hunch

Missing documents are the top reason benefits applications are denied

We assume the issue is lack of ease in uploading documents

Mobile-first document uploader

Hypothesis 1

Agencies are lacking basic document uploaders

Market will not meet this need

Mobile-first document uploader

Insights

Most agencies have document uploader tools and have been upgrading them in the last few years

Most contractors build document upload functionality along with their enterprise system delivery for document management

What is still missing is getting data out of the document without manual intervention for the next step in the process

Hypothesis 2

Agencies are lacking document processing tools

Market will not meet this need

Are agencies too narrowly focused on enterprise or full document management upgrade solutions which are expensive and once they happen the expectation is that the system will be in place for a number of years? Are agencies simply not thinking about solutions in a modular and components based way which is preventing them from "mini-upgrades"? Likely COTs not available in an easy to implement alongside existing systems way because a lot of private sector value prop is: we want you to be dependent on our system and buy the whole system from us.

TTS should offer a federally shared product

Hypothesis 3

Real issue is administrative burden - administrators have too much manual work to do to process documents, slowing down a decision for the beneficiary

Maybe the real issue is not missing documents but missing information and beneficiaries being confused about what information is required. An administrator can help with that but is slowed down by having to manually process documents.

Image processing document uploader

Annotated Roadmap

Research Phase

Problem

Solution

Educated hunch

Something that was missing in this phase was validating the problem. Are agencies actually experiencing document upload issues? If so why? One reason this may be the case is that R&D was overly focused on existing solutions as opposed to existing problems.

Missing documents are the top reason benefits applications are denied

We assume the issue is lack of ease in uploading documents

Mobile-first document uploader

R&D felt pushed towards feasible solutions as opposed to known problems due to perceived time pressure on proving the "Studio model" and differentiation from 10x.

Hypothesis 1

Agencies are lacking basic document uploaders

Market will not meet this need

Mobile-first document uploader

Hypothesis 1 was really trying to take that first step in validating the problem. We did this by testing a solution to that problem. Why? Because we felt putting a concept in front of someone would be a faster way to get specific feedback on needs. And R&D has always had a bias against more open-ended problem discovery.

Insights

Most agencies have document uploader tools and have been upgrading them in the last few years

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What is still missing is getting data out of the document without

What has been missing up until this point is conviction in a real and existing problem. We believe we have now found that by finding a match between what potential customers are telling us and what experts are telling us. Matching primary data on present needs to secondary research on the ecosystem.

Hypothesis 2

Agencies are lacking document processing tools

As a government accelerator we not only focus on existing public sector needs but needs that require our intervention - needs the market cannot or will not meet in the ways necessary for government. We have identified a need but now need to understand why this need is not being met by the market. Is it simply a matter of time or are there fundamental mismatches between private sector solutions and government needs that warrant our intervention?

Note, however, that we are now shifting towards an inquiry model focused on understanding the problem over simply pivoting on the solution. R&D supports this shift in thinking.

To offer a fully shared product

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Maybe the real issue is not missing documents but missing information and beneficiaries being confused about what information is required. An administrator can help with that but is slowed down by having to manually process documents.

Image processing document uploader

If indeed we find there is reason for the gap between private sector solutions and government need that warrants our intervention - what is the solution we want to test?

Hypothesis 1 Learnings

Hypothesis #1: The simplest product we could build that provides value is a mobile-first document submission tool that delivers documents to an inbox.

Mobile-first

Validated

- Customer stakeholders really liked that our product sketch was designed as mobile-first
- Stakeholders that have already updated their document tools told us mobile accessibility was a key vendor ask
- Market research shows that most COTs in this space offer mobile document upload functionality
- Both secondary research and stakeholder interviews confirm that the ability to apply for benefits with a phone is a critical need for this population

Delivers documents

Mostly Invalidated

- Both experts and a majority of customer stakeholders cited processing documents and reducing the need for manual review and data entry as more urgent needs than document uploading
- Experts do find that document uploading is still a need across states but not the most opportune gap for us to fill –instead they recommend looking into solutions to streamline document processing post upload.
- Secondary research confirms that states are making progress in building mobile-accessible applications on their own.

To an Inbox

Invalidated

- Any solution we build in this space will need to be able to plug into existing workflows
- Our solution will have to be able to be integratable to be viable—but that does not mean we have to build custom integrations
- Experts suggest building in a modular and components-based way

Hypothesis 1: Testing and Findings



Testing hypotheses



Hypothesis #1: The simplest product we could build that provides value is a mobile-first document submission tool that delivers documents to an inbox.

Method 1: Talk to potential customers (state and local benefits administrators) about their document processing needs, their existing tools, and feedback on our sketches.

Method 2: Leverage existing research and expertise on document uploaders by talking to folks who have built document uploaders for government before

Research Immersion Pathways

We tailored discussion questions and exercises to four potential pathways (**A, B, C, D**) research participants might fall into.

Pathway A participants do not have a basic document submission tools however there organization potentially were interested in purchasing one.

- *Interview structure: Learning conversation and mural exercise using our product sketch to determine what would be important to include in influencing their purchase decision.*

Pathway B participants have a basic document submission tool and were potentially interested in a more advanced document submission tool.

- *Interview structure: Learning conversation, participant product walk-through and mural exercise using our product sketch to validate the hypothesis and determine what would be important to include in influencing their decision to switch.*

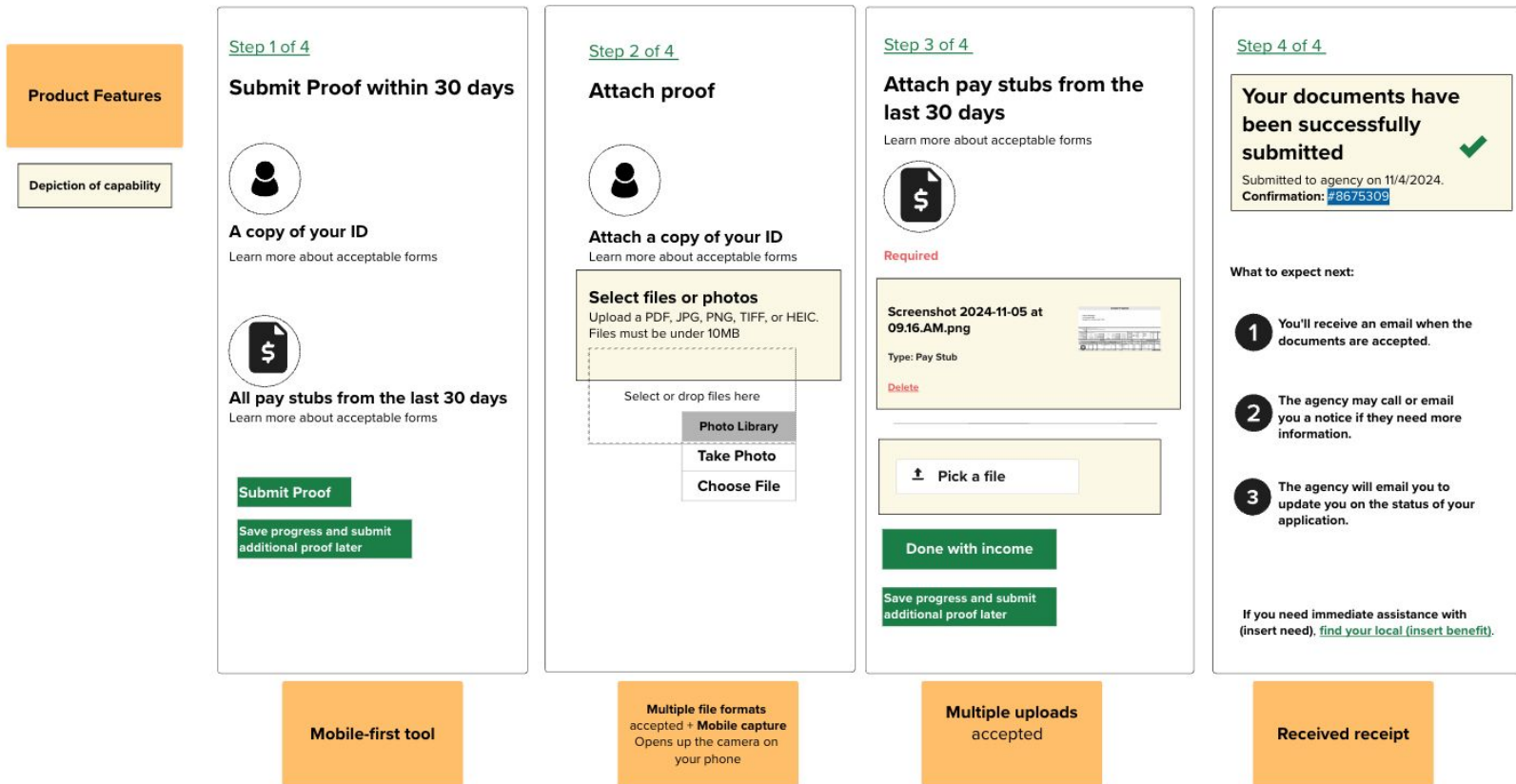
Pathway C participants have a robust document submission tool with advanced capabilities.

- *Interview structure: Learning conversation, participant product walk-through and socialize the product sketch to validate the hypothesis and determine what would be important to include.*

Pathway D participants are subject-matter experts in the benefits and document tooling space – mostly builders of document uploaders.

- *Interviews structure: Learning conversation, we tailored each interview to the specific projects worked on and positionality of the expert (i.e. which programs they worked with, are they inside or outside govt.)*

Conceptual view of document uploader from the perspective of a benefits applicant



Conceptual view of document uploader from the perspective of a benefits administrator

Adminstrator View

Client Reference Number	Status	Date
8675309	Downloaded	11/06/2024
8675310	Sent to Inbox	11/07/2024
8675311	Unread	11/12/2024

Benefits Message Queue X

Client documents have been uploaded and ready for review.

Review Send

Adminstrator Message

Client Reference Number

#8675309

Verification Type

Pay Stub

Pending Documents

State Identification

Verification

Screenshot 2024-11-05 at 09:16.AM.png

Download Send to Inbox

Interview Summary Recap

Interviews

- State Office of Unemployment Insurance, IT
 - Pathway C-Learning conversation and KY tool walk through
- State Office of Innovation
 - Pathway A-Product concept feedback + activity
- State Dept. of Job and Family Services
 - Pathway A-Product concept feedback + activity
- CfA, [Louisiana document uploader + texting pilot](#)
 - SME Interview
- DOL Innocation [DOL Document Uploader Guidance](#)
 - SME Interview
- Nava, [Vermont Document Uploader](#)
 - SME Interview

High level questions

- How is your organization managing documents submitted from benefits applicants today? What is working? What is not working? What are your current needs?
- Would you be interested in a document submission tool? What pieces of our proposed concept feel most important to you?
- What is most important to you when making a decision to buy or procure a new tool?

Summary Insights*

(*insights encompass [hypotheses 1 and 2](#))



Feedback on our product concept

Key Takeaway: While our basic document uploader sketch was aligned with participants vision of an MVP, basic document uploading was not the most urgent need we heard from our interviews.

Product Sketch Feedback (frontend)

- Process seems straightforward with a clear call to action
- Ability to save progress key
- Confirmation number/receipt affirmed as a need beneficiaries have asked for
- Preview of document uploaded noted as a plus
- When a document uploader was already in use, tooling looked very similar to our product concept
- Ask: multilingual translations

Product Sketch Feedback (backend)

- Connecting to claimant ID or case # most important feature
- Really liked the alerts – i.e. when a document is uploaded related to a case
- Ask: must fit into existing workflows

Learning 1: Document processing not document upload is the real need

We did not hear desire for a document uploader.

Rather, we heard in every interview, desire for a solution that could reduce “manual interventions” necessary for processing documents that hinder rapid decision making for staff and claimants.

“What happens from moment [document is uploaded] is really where states are spending a ton of time and money”

- DOL SME

“States might not have capacity to understand context [of the document] because it’s a manual process. Context can help routing [go faster] based on document submission.

-State Office of Unemployment Insurance, IT

“But the reality is many different states are starting from many different places. [Document uploading] is too narrow of a functionality to be built as shared service.”

-Nonprofit

“Most docs come in a form OCR can identity... [I] want to be able to scrape out data. [I] want to get information automated”

- State Office of Unemployment Insurance, IT

“Make it easy to export and consume that data after submission”

-State Office of Innovation

“ Our work with the VA is a good example. [We] focused on document processing, data extraction, document upload, classification [...] getting to rapid decision making. [We are] helping VA case workers have prioritized case loads they can shuttle through quickly”
X , Nonprofit

“Ineffective document management” was cited as the number 1 answer to the question: ‘What are the biggest barriers to SNAP access in your state’ amongst county administered states”
Center for Law and Social Policy (2018)

States are making progress on mobile accessibility on their own– there has been a 26% increase in mobile responsible online benefits applications from 2019 (43%) to 2024 (69%).
CFA Enrollment Guide

Document upload alone may not have the intended impacts to justify its investment, a pilot done by CFA and OES shows that improving access to mobile document submission doesn’t have a meaningful impact on enrollment.

Decreasing Supplemental Nutrition Assistance Program (SNAP) denials due to incomplete information, OES

USDA Process and Technology Improvement grants have shifted from building document upload capability (2014-2017) to document processing capability (2018; 2023-2024), within the broader document solution scope.

SNAP Grants for Document Solutions

In Nava’s 2024 Public Benefits Report all 5 of its service delivery projects highlighted focused on different solutions for pre-processing data that is transmitted between the public and the government agency client to enable faster decision making with that information.

Nava’s 2024 Public Benefits Report

contd.

There may be certain agencies that need a basic mobile document upload tool but we will need to be more targeted to find them.

“Document submission is challenging because our system doesn't have an easy way for them to do it.”

State, Dept. of Job and Family Services

“Most states lack document uploaders, and if they have them they aren't usually designed for mobile and accessibility.”

-DOL SME

“Look at programs that have fewer resources but a large number of claimants. Examples include SNAP, tribal assistance, WIC, Disaster Unemployment Assistance.”

-DOL SME

19 states do not have mobile-friendly formatting for smartphone for their Medicaid applications.

Medicaid and CHIP Eligibility and Enrollment Policies as of January 2022: Findings from a 50-State Survey

What was most important to decision making around new technology was reducing operational burdens and automating manual tasks.

“Validating impact on staff productivity is the most compelling selling point”

State Office of Innovation

“make [the] case [that it is] either going make services better for customers or save staff time.”

State Dept. of Job and Family Services

{Decision makers} look at improvement—could be back and forth for case workers be reduced, reducing all all they have to do when validating documents from claimants

CfA

“The problem really is whether we can act on [the information] fast enough to make an accurate decision,...also one that is timely, and those are the words you're going to hear UI directors and labor directors using.”

DOL SME

Agencies have changed their tooling to be more usable for beneficiaries, but backend processing has continued to be a need.

“Want to accommodate all you can but you have to filter type and file size... [we] had issues with [client] understanding...had someone that uploaded 30 documents [using our new mobile application].”

State Office of Unemployment Insurance, IT

“A lot of claimant taking pic and users don't know how to convert docs [before they upload them]”

State Office of Unemployment Insurance, IT

“Nava is working on UI modernization for NJ. [But we still want] an easy way to export and consume that data after submission.

State Office of Innovation

Learning 2: Market gaps exist because of common government procurement issues

Increased reliance on vendor expertise to make requirements determinations has led to those closest to the systems not being able to make upgrade decisions.

Vendors are also incentivized to offer larger system changes over smaller component-based upgrades.

“California is locked into a relationship with one vendor which makes changes really challenging.”

DOL SME

“[our mainframe] was stable but it got blamed for a lot of the problems we had during the pandemic so there was a lot of ‘we need to replace all this’ [...] and it came down from the Governor’s office”

State Office of Unemployment Insurance, IT

“Honestly state administrators are probably more focused on their tech vendors’ current backlogs [...] and trying to balance out their time for program administration. OCR may be on their radar, but between procurement and their eligibility & enrollment system vendors it may feel quite distant.”

USDS

80% of the \$90 billion in federal IT spending in FY2019 was allocated for maintenance of legacy software

GAO’s June 2019 report

**COTs are not easy to implement
alongside existing systems in agencies
with diverse needs**

Adapting COTS to fit the specific needs of a program and the people it serves can be a time-consuming process, with unexpected costs, resulting in inflexible and difficult-to-maintain systems.

Nava Insight

“Google, Salesforce and Microsoft all have solutions they'll sell you, which are easy to adopt if you already store your data with them, but they still require bespoke engineering on a doc by doc basis for a lot of use cases.”

10x

“So when you have these legacy systems that they're dealing with, getting them to adopt a new thing is very difficult.”

SME DOL

An overview of document processing market solutions confirms that most OCR solutions are built to work within an enterprise document management system, with limited interoperability with other systems.

Product Comparison Matrix: Document Processing

COTs may be out of reach for many agencies – they are expensive or else require a high level of technical expertise to onboard which may not exist in-house.

The most sophisticated commercial tools that are using advanced OCR technology require considerable technical expertise to implement.

[*Product Comparison Matrix: Document Processing*](#)

One of the best OCR technologies for image to text conversion, AWS Textract, can cost upwards of \$15K/mo. Others with less adaptability and OCR strength range from \$100-200K annually.

[*Product Comparison Matrix: Document Processing*](#)

“[to get new technology] you have to apply for grants or else a bill needs to be passed by the legislature”

State Office of Unemployment Insurance, IT

A federally offered solution offers agencies a way to implement faster

Participants trust that a Federally built solution and a Federal vendor will grasp their needs

“[If we were working with a vendor for upgrades] we would have to not just pay for it to be developed but also wait however many years it takes them, so yes I would love for more options so we can make it easy for people to submit documents.”

State Dept. of Job and Family Services

“Want to move away from private vendor and migrate to more open source or federally offered solutions...only lightly exploring at the moment.”

State Office of Innovation

“[Admin backend] could be a great place for GSA to provide examples and guidance on effective use of bots and AI”

DOL SME

Learning 3: Document solutions must fit into existing workstreams

A solution in the document space must be able to be implemented alongside existing systems

“Approach it as a modular solution where they [states] can pick the components they need most.”

DOL SME

Platform integration with current and evolving internal web applications like DataCap, FileNet, AEM and Seibel is a requirement.

State Department of Human Services

“I don't think it's a matter of switching,...if it was flexible enough, it's a possibility I would be interested in recommending.”

State Dept. of Job and Family Services

“MA, CA, NJ all [had] slightly different [needs]...[we] looked at one small step...[it's] easy to spin up something baked on shared patterns rather try to to force a shared service code base.

X, Nonprofit

Learning 4 (Bonus): Agencies want greater integration and centralization that would reduce the ask from beneficiaries

Stakeholders want a system that is more centralized and allows for more data sharing between agencies to reduce the burden of repetitive submissions from beneficiaries.

“Want the ability to pull out [benefit applicant] information without document submission all together.”

State Office of Unemployment Insurance, IT

“Ultimately I’d like one central place where people submit an open request for information [and] solve for fragmented systems that require multiple logins”

State Office of Innovation

“[I’d like] one application with many funnels”

State Dept. of Job and Family Services

FindHelp.org – previously Aunt Bertha – acquired kiip.co, a document wallet solution in 2024 to “reduce administrative burdens for at-risk populations and service providers”.

[FindHelp](#)