

Digital identity document storage



Compendium of knowledge in 100+ slides - choose your adventure

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What we're solving for

Background

Overview of the Platform

Security & Accessibility

(and where blockchain fits into the platform design)

Privacy & Administration

Roadmap: MVP - Alpha - Beta - Launch

Resources & Links

1

what we're solving for

Hidden Needs

50%

of HOST (Homelessness Outreach Street Team) clients who are seeking access to 13 vital services lack an ID.

75 - 80%

of clients from The Other Ones Foundation lack one or more key documents for services

Hidden Costs

\$20,000

spent annually by the
Downtown Austin Community
Court and Trinity Center on
document replacement (2017)

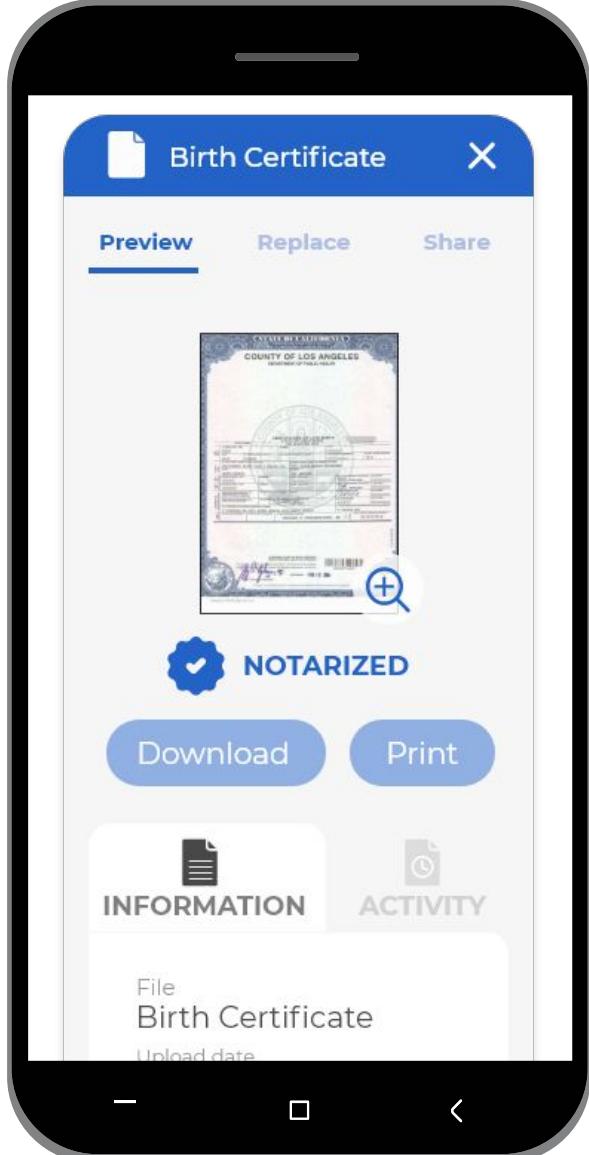
1200 hours

amount of staff time The
Other Ones Foundation spent
in a year helping clients
procure documents

A sense of agency

Neighbors experiencing homelessness told us it would give them more agency and control and less worry.

They told us that this small act of a digital ID can save lives.



"Your phone is your life out here."

Paper documents are hard to keep up with and expensive and time consuming to replace. Having the ability to have documents [digitally] notarized here too is an awesome [feature]."

~Person experiencing homelessness

"It's a secure place to keep my documents without the fear of them **being stolen** or **[my] identity taken**."

~Person experiencing homelessness

"Easy access, don't have to worry about losing, potential employers could see it, **[can overcome]** **limit on social security cards/documents**"

~Person experiencing homelessness

In their
own
words,
during
user
testing



Possible future use cases

Mutual Aid groups can help get community members organized and prepared to apply for federal, state, and local assistance.

For applicants benefiting from multiple programs and referrals, instead of having their documents in shared drives inside organizations, applicants can share digitally notarized documents with anyone.

Outreach workers have expressed interest in learning more about LifeFiles and how they could use it within their organizations.



Sunrise Homeless Navigation Center

"We are the only full-service navigation center that stayed open during the pandemic. We see first hand the trap that lost/stolen/destroyed documents pose to people without homes as they expend tremendous time and energy trying to reacquire documents over and over again.

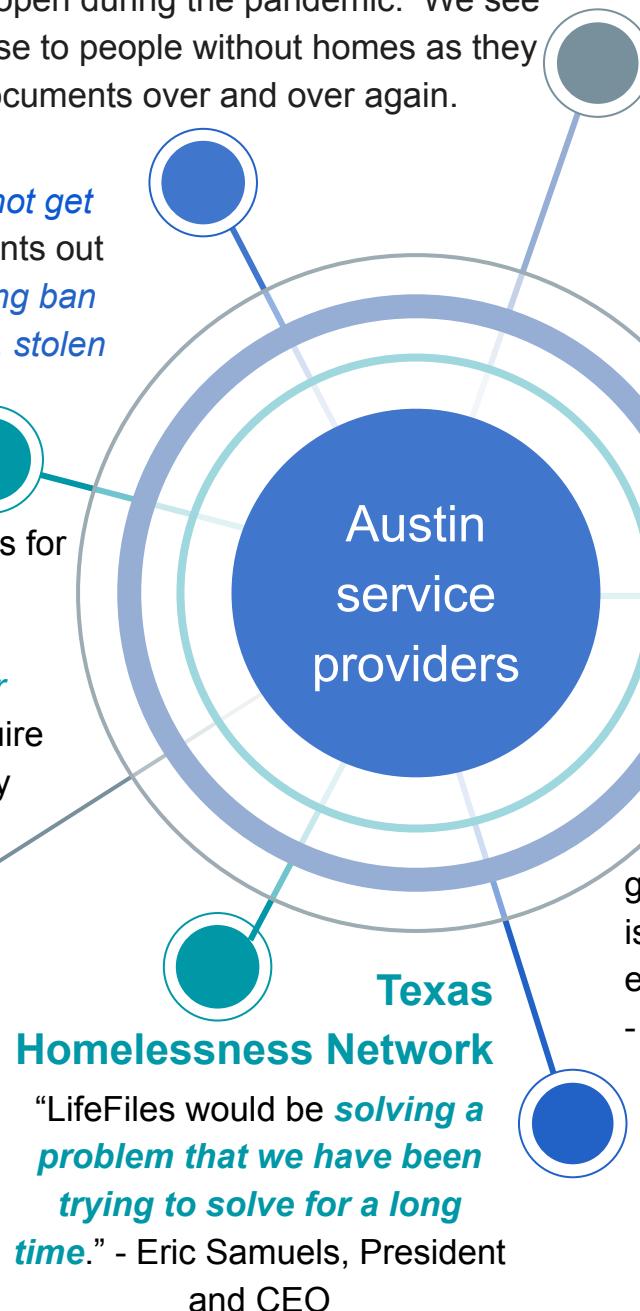
Without these documents they cannot get jobs, apply for housing, cash checks, open bank accounts etc. They cannot get on their feet. LifeFiles would allow us to help motivated clients out of this endless cycle, *particularly at a time when the camping ban and imminent sweeps will result in their property being lost, stolen or destroyed.*" - Sarah Weier, Assistant Director

Foundation Communities

"It would be immensely beneficial for clients that come to us for one service but also need others. *Some clients cancel appointments because they can't find their documentation. Having access through a shared resource amongst partner organizations would be immensely beneficial.* It would require less documentation being brought to an appointment if they have access to it." - Connor Tantu, Program Coordinator

Integral Care

"Historically the population I serve has missed out on many opportunities to change their life due to not having the right identity documents accessible. *LifeFiles will make it possible for individuals to not miss out on these opportunities* by having a safe and secure place to store these documents. - David Gomez, Program Manager for Homeless Services



Austin Public Health

"Document and identity management are immense hurdles for people experiencing unsheltered homelessness. It is easy to take for granted the ease with which most of us access the marketplace and essential services, because we are accustomed to holding the keys that unlock the doors to basic healthcare, food, housing, and employment. LifeFiles solves for numerous barriers to systems entry by **making identity management and document storage resilient, secure, and intuitive for the end user.**"

- Charles Loosen, Homeless Strategy Division

Downtown Austin Community Court

"Replacing an ID or driver license can be very difficult if the information on the ID is unknown, specifically the ID/DL number. In addition, the Social Security Administration only allows an individual to possess ten social security cards in a lifetime. If this amount is exceeded then a letter from a government agency, specifying the need for a replacement card, is needed. This means only certain providers can request this exception. **LifeFiles would save time and resources.**"

- Jennifer Sowinski, Clinical Operations Manager

Housing Authority of the City of Austin

"I definitely think that LifeFiles would be a value-add to the community for all the programs that applicants have to apply for."
- Pilar Sanchez, VP of Austin Pathways

2

Background

How long we've been at it....



Bloomberg's i-Team, finds a major barrier in helping people experiencing homelessness: safekeeping their private documents.

2017



Through Bloomberg's Mayor Challenge, City of Austin Innovation office dives further into the foundation of MyPass, weighing both its potential and its feasibility.

2018

Robert Wood Johnson Foundation



Robert Wood Johnson's Foundation gives MyPass wings to acquire the team and resources needed to start the design and development of MyPass' Minimum Viable Product.

2019

Life Files

The grant-funded team completes the minimum viable product, and rebrands it as LifeFiles to avoid a trademark conflict

2021

Collaborators Along the way



Robert Wood Johnson Foundation

ID 2020

NIS
National
Innovation
Service

 Permanent.org




THE OTHER ONES
FOUNDATION




THN
TEXAS HOMELESS NETWORK



 **Austin
Blockchain
Collective**

 **ECHO**

3

Overview of the Platform

Key features of the platform



5 Design Principles



Self-Determinant

In the face of a system that perceives you through data you don't control, LifeFiles gives you full control over the documents that represent you (to facilitate access to services you may need).



Secure

LifeFiles keeps your digital documents safe using the most advanced security features available.



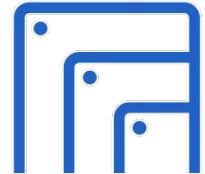
Accessible

Whether you love, hate, struggle with, or don't understand technology, LifeFiles was built with your preferences and abilities in mind.



Private

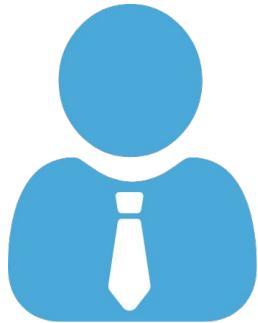
You alone retain the ability to share, revoke, or delete access of your identity documents.



Extensible

LifeFiles technology was built to adapt with changing times, contexts, and a variety of use cases.

Two types of users...



Document Helper

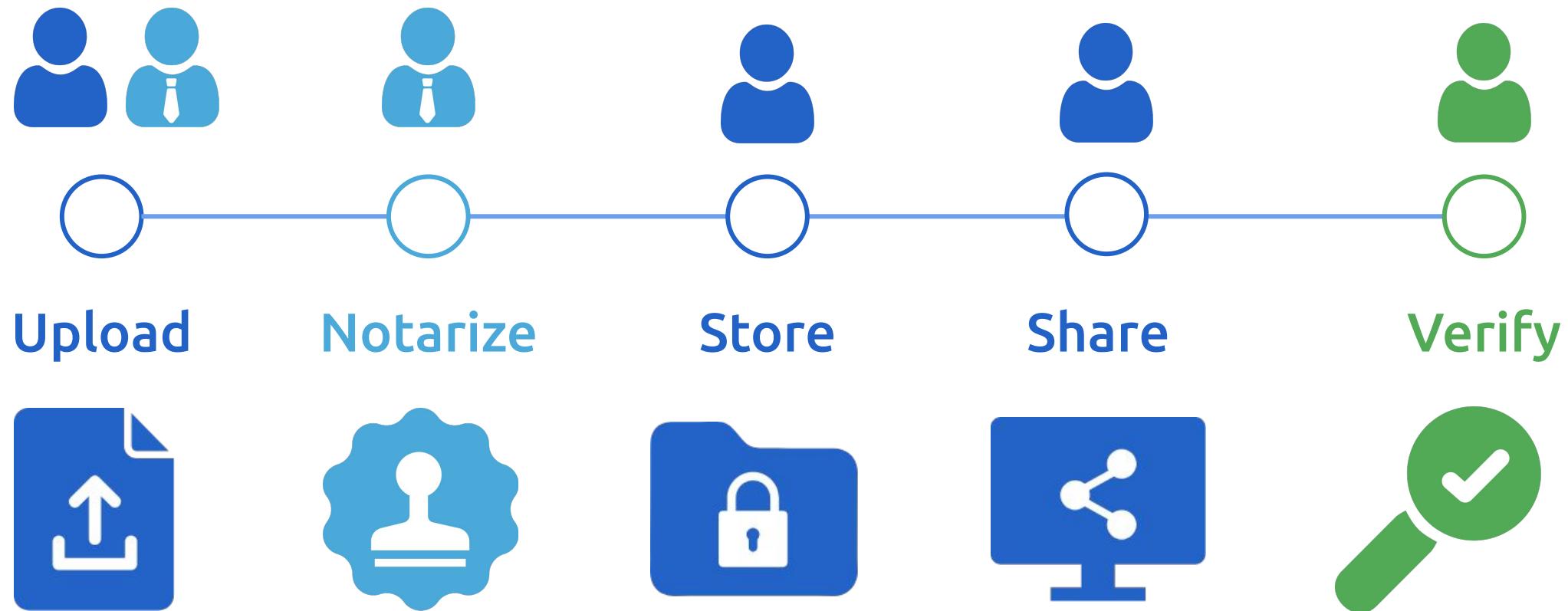
Helper users are case workers, family members or a notaries with clients that require assistance in notarizing and/or uploading their documents.



Document Owner

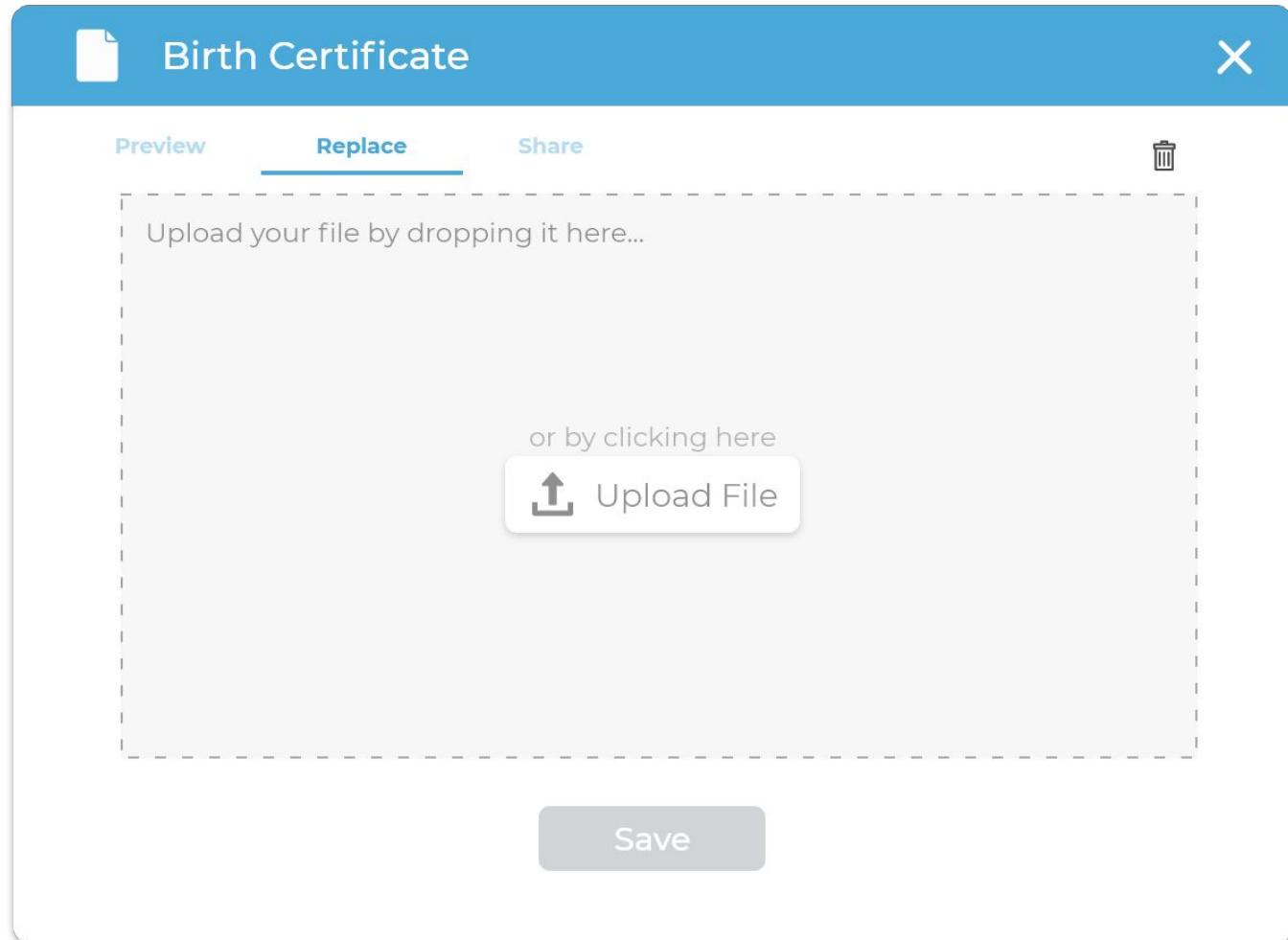
Owners are the proprietors of the documents. They have full autonomy how their digital files are stored, and who they are shared with, if they are shared at all.

Document Journey



Upload

Document Owners (or
Helpers) can upload scans
or photos of any
important document that
they don't want to lose.



 Birth Certificate X

[Preview](#) [Replace](#) [Share](#) 

 NOTARIZED

[INFORMATION](#) [ACTIVITY](#)

File
Birth Certificate
Upload date
01/12/2020
Upload by
Will Foxx
Upload by
N/A

[Zoom in](#) [Download](#) [Print](#) [File Information](#)

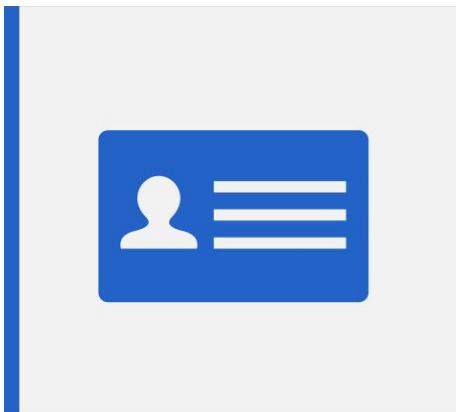


Store

Once uploaded documents are encrypted and stored with enterprise-level security. Providing the maximum privacy and control to the owners of the documents

Securely Encrypted

Original File



Encrypt →

Output

```
6C7D 2CDB FE3D 79A9  
EE82 90B1 FB99 BB41  
F97C DB2C 0488 91DC  
EC82 4F8C 2184 1337  
825D FFE4 77C6 662B  
BB8D 8A6C 72EA D091
```

Upload →

Database



```
6C7D 2CDB FE3D 79A9  
EE82 90B1 FB99 BB41  
F97C DB2C 0488 91DC  
EC82 4F8C 2184 1337  
825D FFE4 77C6 662B  
BB8D 8A6C 72EA D091
```

Notarize

Although it's not necessary, LifeFiles provides the tools for a notary public to make a certified copy of any uploaded document, which can aid in verifying the document later.

Will Foxx - Birth Certificate X

Preview Replace Notarize

NOTARIZATION TYPE
Certified Copy ▾

NOTARY INFORMATION
Notary Name Jacob Gonzales Notary State TX ▾
Notary # ABC12345

SIGNING KEY
Use PEM



KAYLA NIXON
NOTARY PUBLIC
ID# 131234567
State of Texas
Comm. Exp. 02-30-2025

Upload New Seal

Notarize

 Birth Certificate

Preview Replace Share X



CONTACTS
Select a contact to share this document with

Jacob Gonzales Patrick Harrison Laura Bermuda

Name	Jacob Gonzales
Organization	Helping org
Role	Case Worker
Phone	512.503.4235
E-mail	J.gonzales@helping.org

Share Birth Certificate?

This file is currently being shared with Jacob Gonzales

TIME LIMIT
Specify how long this document will be shared

Share for... **FROM**
March 27, 2020 **TO**
May 27, 2020

Share

Whether it's a family member or a case manager, we often rely on others to help us fill out applications. LifeFiles allows for documents to be shared with helpers in order to help navigate services.

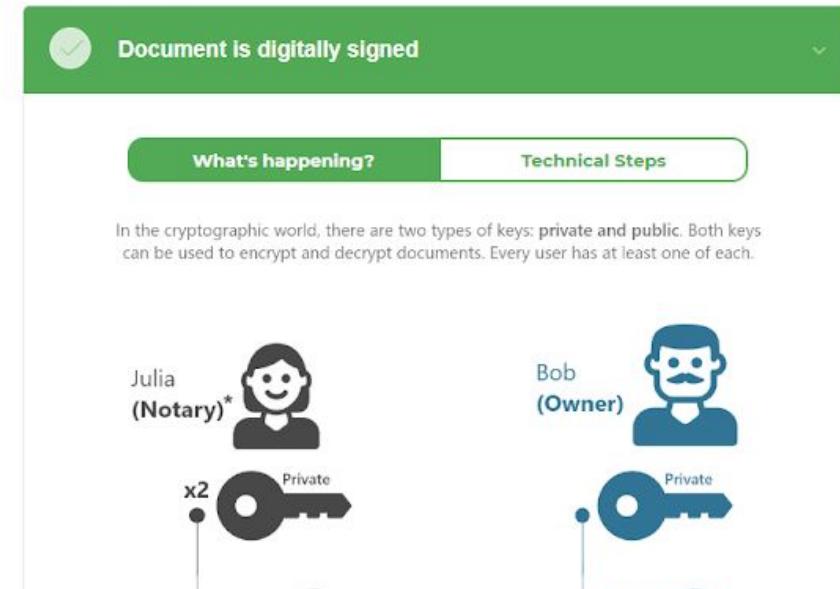
Verify

In order to accept copies of document officials want proof that the copy is authentic. Any document notarized through mypass can be verified as authentic, and legally executable

<https://verificationsite.webflow.io/verify>

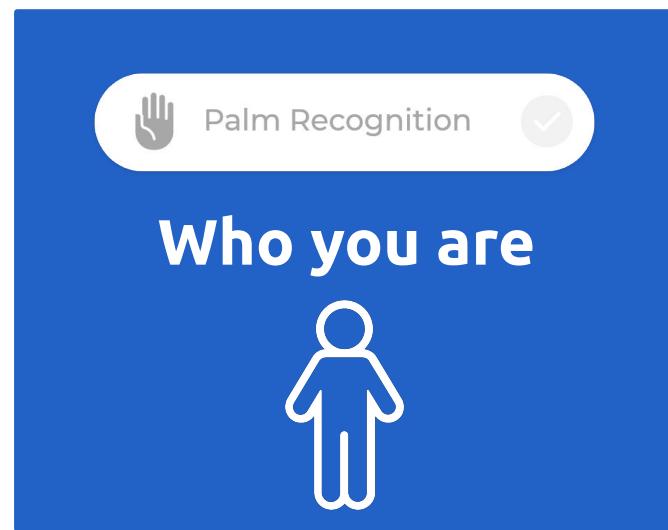
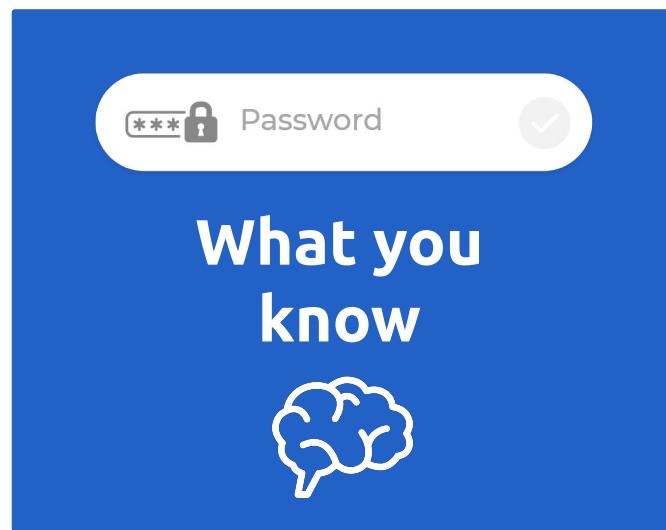
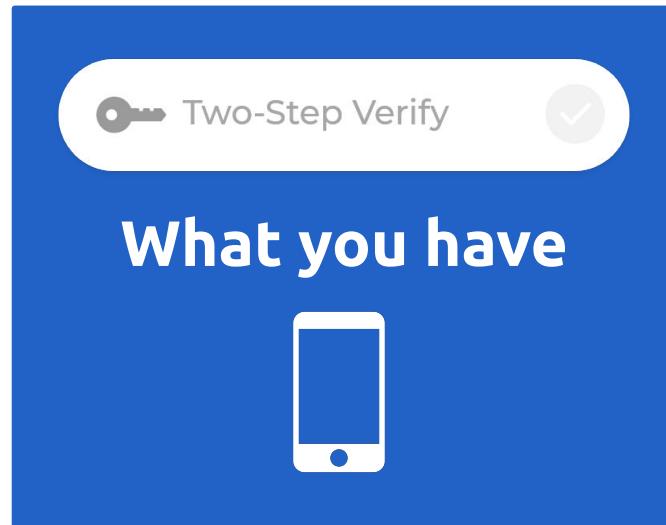


Notarization is valid



Login Methods

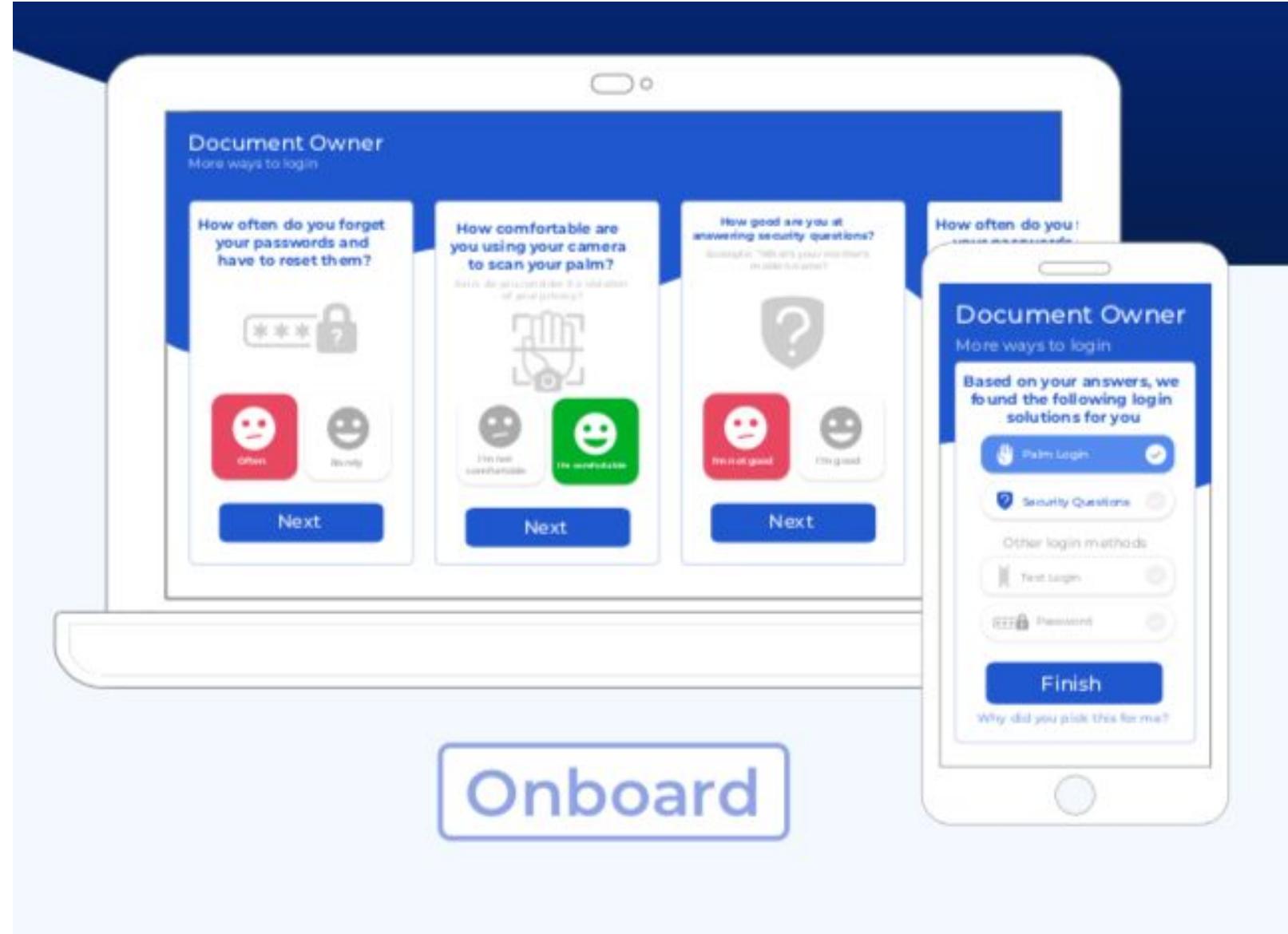
Everybody is different.
There's no ultimate
solution for accessibility.
What works for one
person may be a
nightmare for their
neighbor. This is why we're
developing a system that
allows for *multiple ways to
login.*



Security vs Accessibility

Document owners receive options for a secure and accessible log-on method based upon a short quiz on how they:

- remember passwords
- remember answers to security questions,
- have access to a device with a camera,
- how often they lose their phone or
- how they feel about biometrics



Social attestation for account recovery

My Clients > Will Foxx

Will Foxx

Help this client login?

SHARED

UPLOADED

Will Foxx - Account Recovery

Please enter the code below on this client's device

Will Foxx's recovery code is

92816392

This code expires in: 23:59:01

If your client loses access to their account, you can help them login and change their password by sharing this 8-digit code. Each social attestation code is worth two login credits. A minimum of six login credits are required to gain back access to the account.

Got it

Social Attestation

What's this?

If you lose access to your account, you may obtain login credits by asking people in your network to confirm your identity by sharing a unique recovery code.

Please enter your code(s) below:

92816392

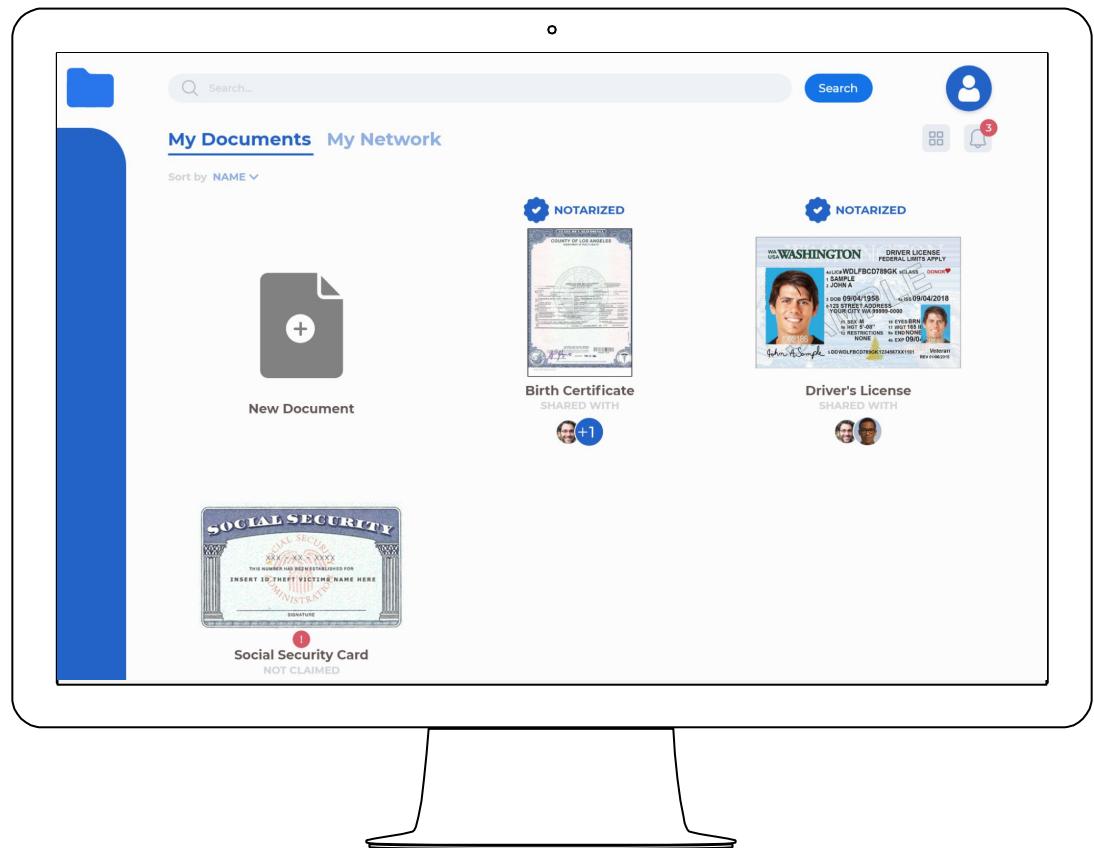
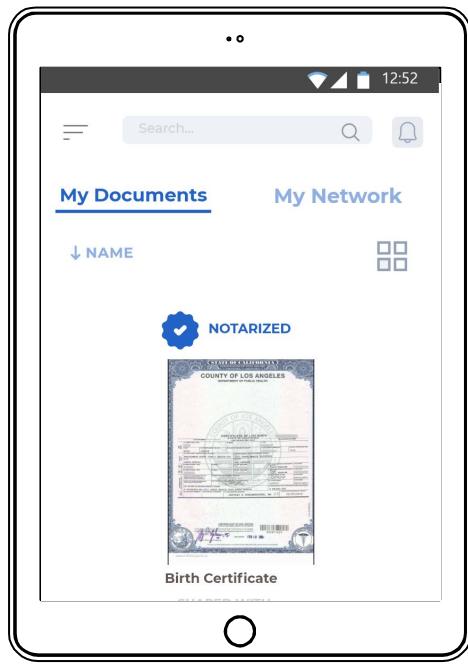
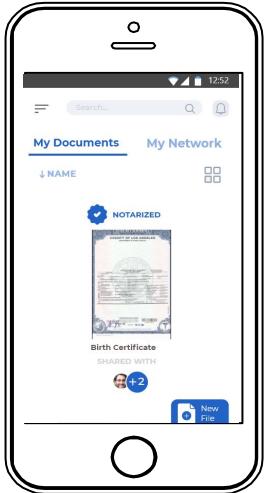
Code approved!

You have earned 2 login credits

Next

take me back

Responsive Website



Customizable Options

1. Installation
2. Administrative Setup
3. Onboarding
4. Roles

Owner
<input checked="" type="checkbox"/> Can upload documents
<input checked="" type="checkbox"/> Can replace documents
<input checked="" type="checkbox"/> Can delete documents
<input checked="" type="checkbox"/> Can update expiration date
<input checked="" type="checkbox"/> Can update account info
<input checked="" type="checkbox"/> Can approve share requests
<input checked="" type="checkbox"/> Can push shared documents
<input checked="" type="checkbox"/> Can revoke shared documents
<input checked="" type="checkbox"/> Can set time limit for share
<input checked="" type="checkbox"/> Can share user info

How much does it cost to run MyPass?

Hosting Costs

# of Users	Monthly	Annually
80	\$0	\$0
1,000	\$0.14	\$1.71
10,000	\$76.42	\$917

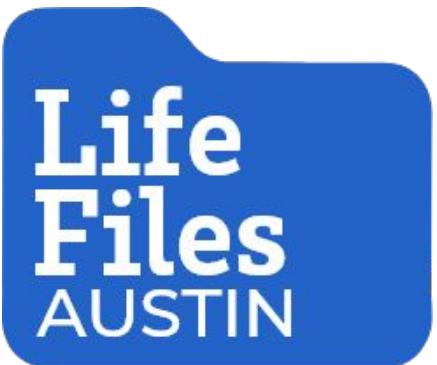
*based AWS S3, Heroku and Atlas costs

4

Security & accessibility

How blockchain fits in the platform design

How we deliver on



Design Principles



Secure

LifeFiles keeps your digital documents safe using the most advanced security features available.



Accessible

Whether you love, hate, struggle with, or don't understand technology, LifeFiles was built with your preferences and abilities in mind.

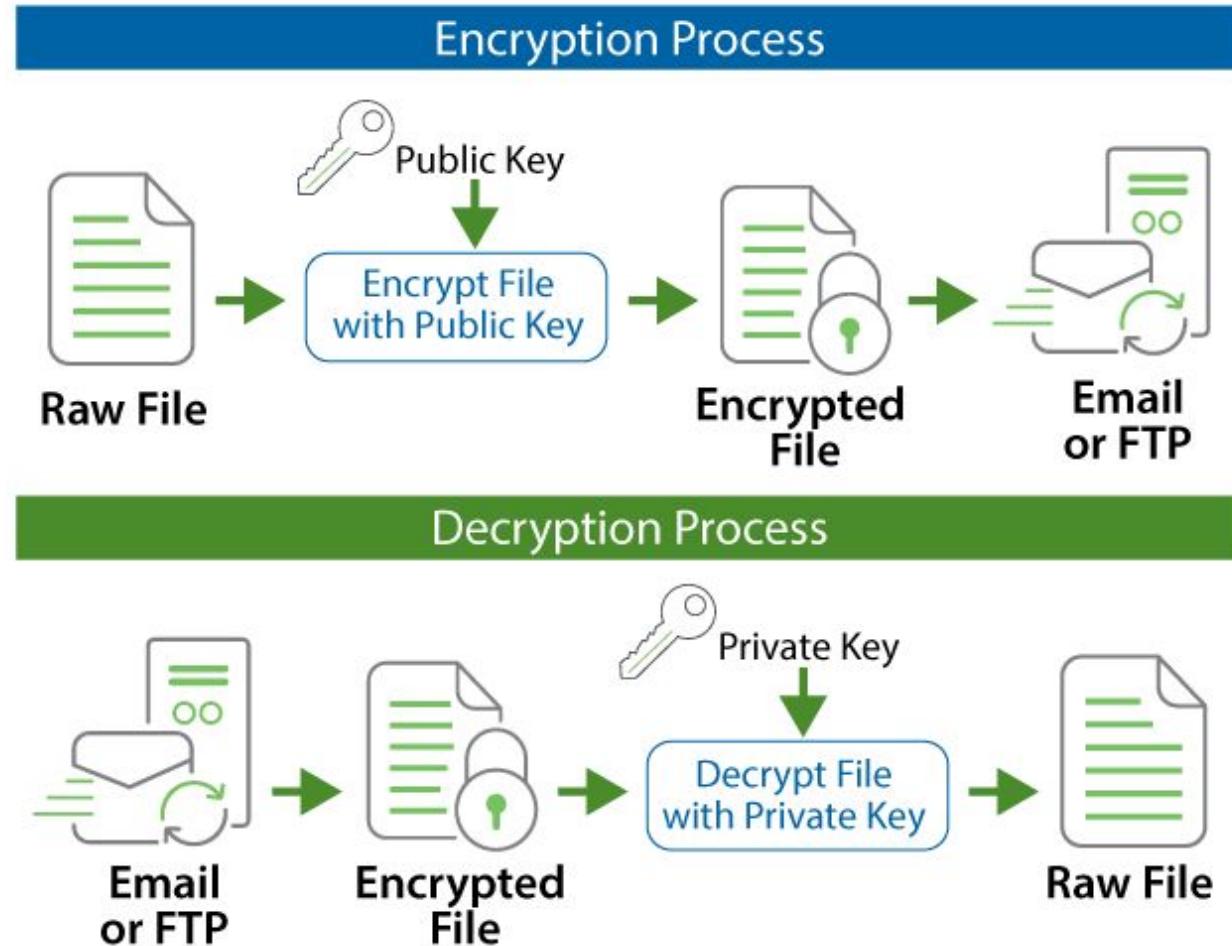
Challenge 1

Security and Sharing

How do we make sure that files are completely secure, and still allow sharing of documents with anyone the user chooses?

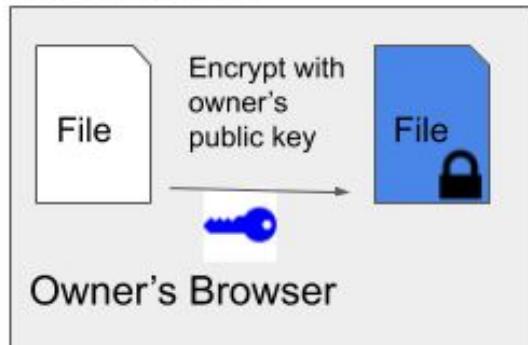
Security and Sharing

DPKI Decentralized Public Key Infrastructure



Security and Sharing

Upload a File:

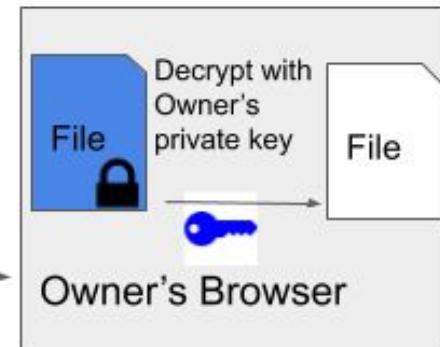


Save file in hosted storage using MyPass app key

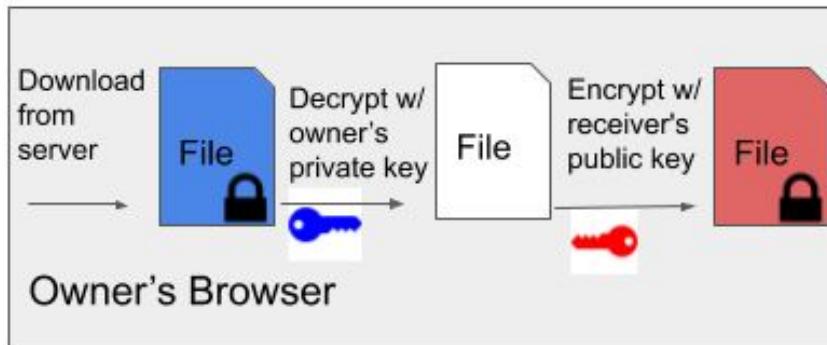


File downloaded from server

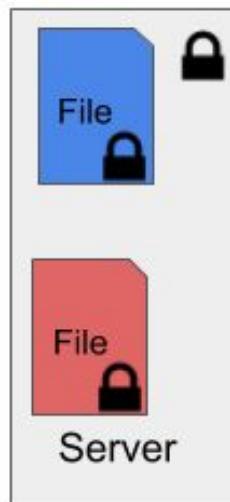
Owner view a File:



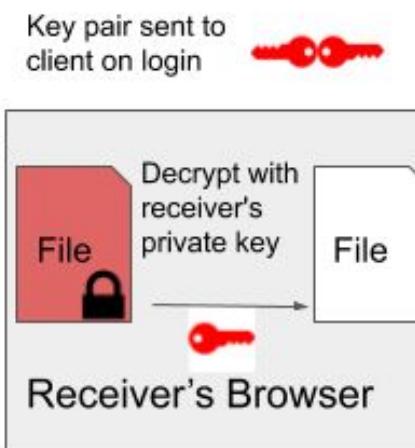
Owner Share a File with a Receiver:



Save shared file to server with MyPass app key



File downloaded from server



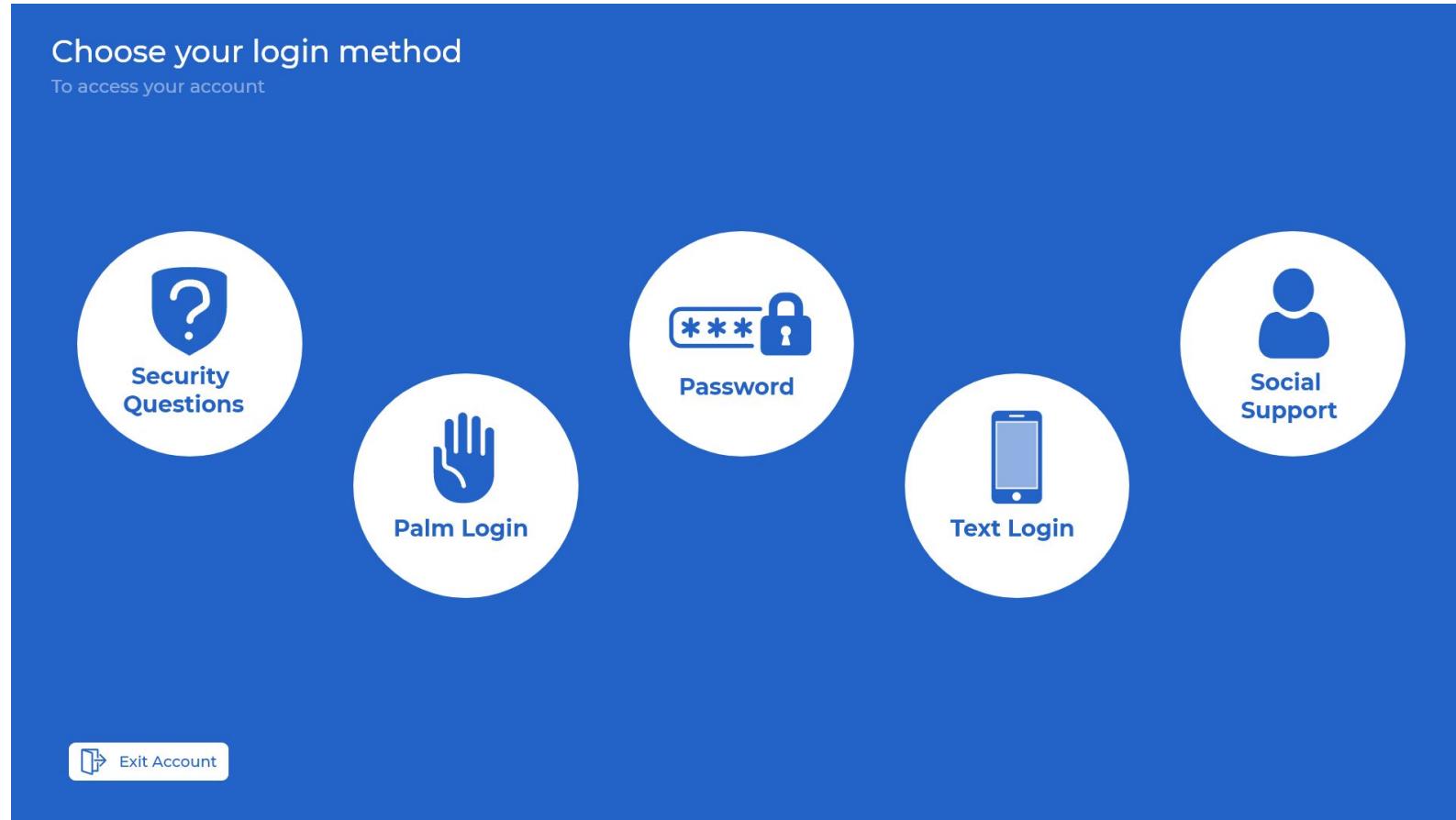
Challenge 2

Key Stewardship

How do folks log into our app if
they have a hard time
remembering passwords?

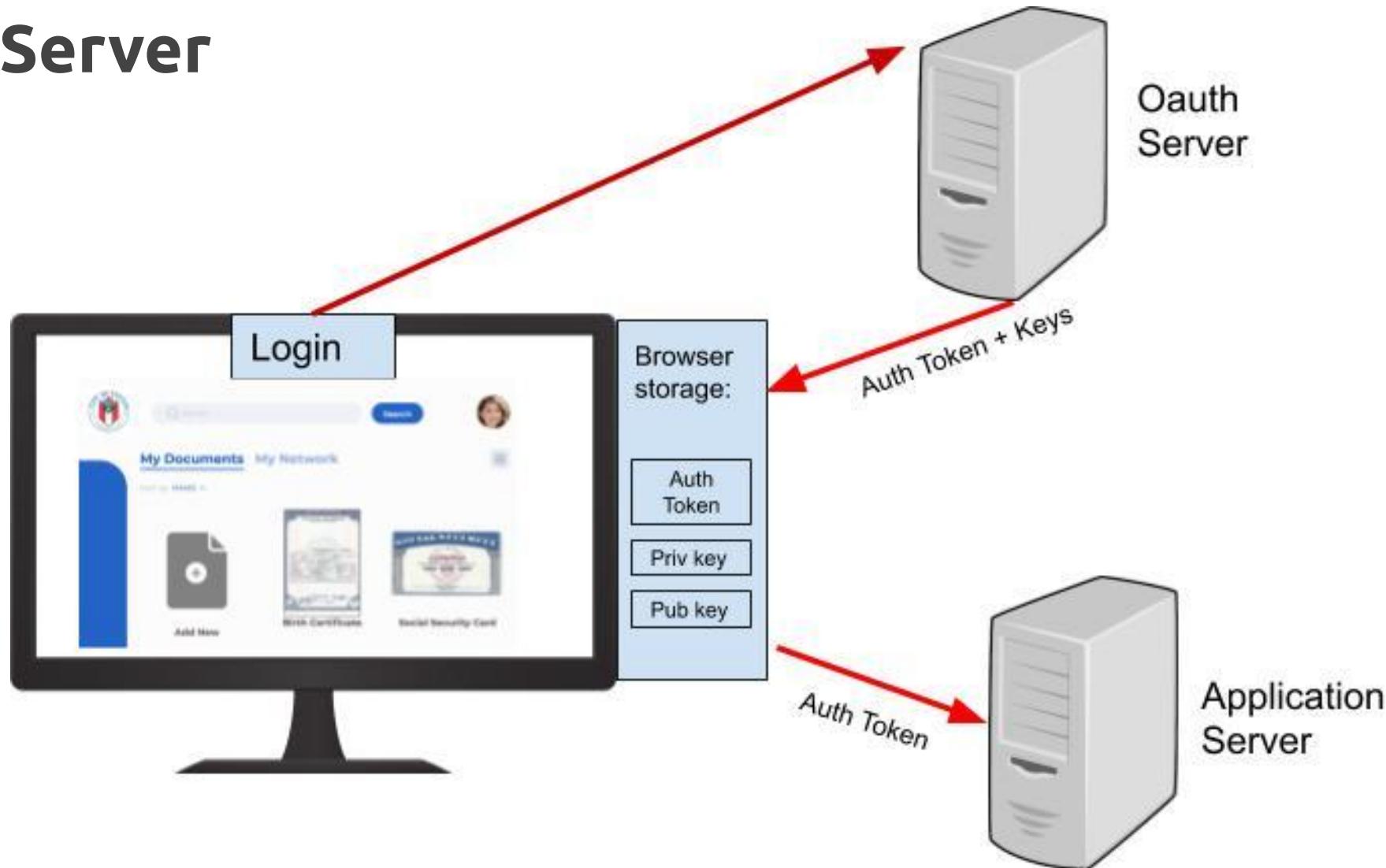
Key Stewardship

Multiple ways to log in



Key Stewardship

Oauth Server



Challenge 3

Transactions with digital documents

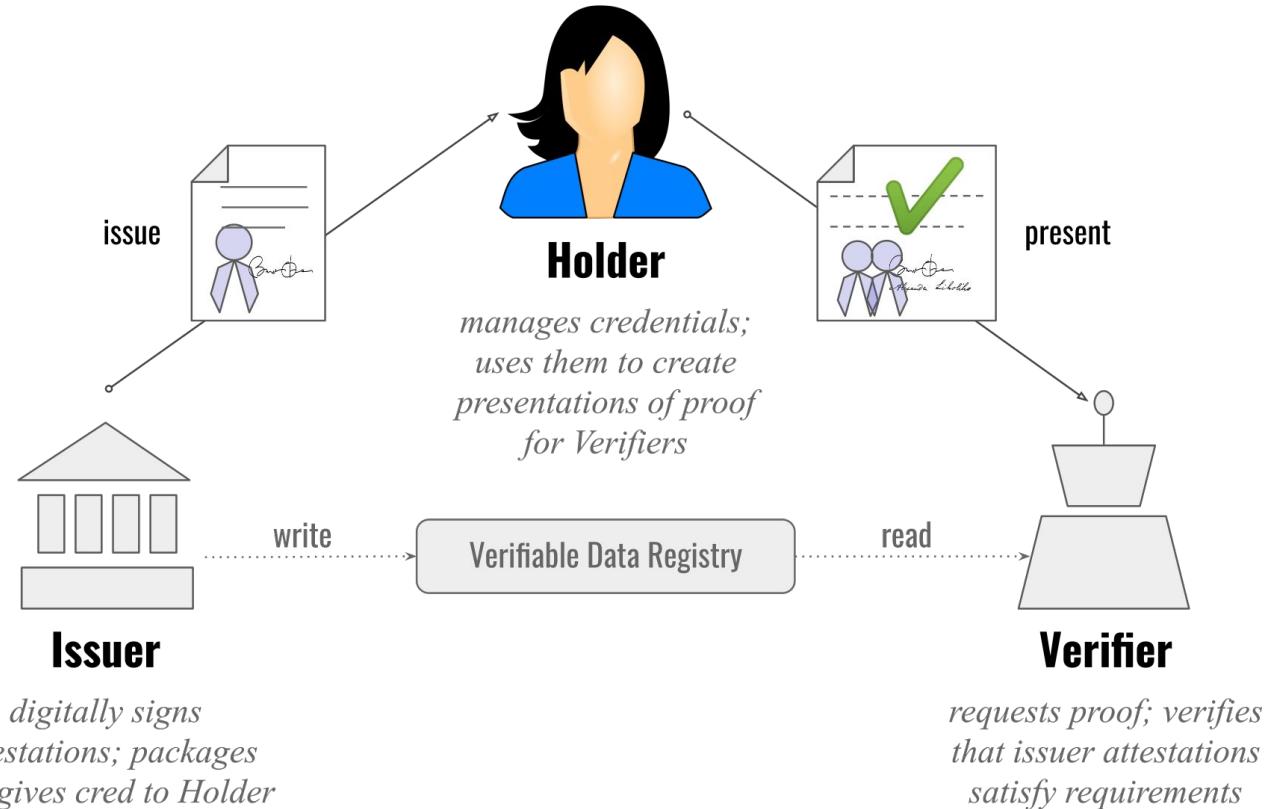
How do we expect people to use these images of documents as if they were originals?

There are **5**
legal requirements for
a document to be
digitally notarized

- A digital signature is used
- Signer is a notary
- Document is tamper-resistant
- Notarized document is controlled by its owner
- The notarized document is original, not a copy

Transactions with Digital Documents

Verifiable Credentials



Transactions with Digital Documents

e-notarization

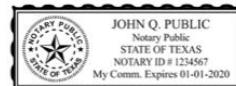


Certified Copy of a Non-Recordable Document

State of Texas

County of Travis.

On this date, Jan 1, 2021, I certify that the preceding of attached document, is a true, exact, complete, and unaltered copy made by me of Insurance Card, presented to me by the document's custodian, John Doe, and that, to the best of my knowledge, the photocopied document is neither a public record nor a publicly recordable document, certified copies of which are available from an official source other than a notary.



Notary Seal

John Public

(Signature of notary)

did:ethr:0x6efedeaec20e79071251fffa655F1bdDCa65c027

Transactions with Digital Documents

Notarization Tools

e-Notarization Tool

X

NOTARIZATION TYPE

Certified Copy

NOTARY INFORMATION

Notary Name: Kayla Nixon Notary State: TX

Notary #:

131234567

SIGNING KEY

Use PEM

Upload New Seal

KAYLA NIXON
NOTARY PUBLIC
ID# 131234567
State of Texas
Comm. Exp. 02-30-2025

Skip

Notarize

Challenge 4

Adoption by document “receivers”

How do we help folks interact with digital notarizations? How do we prove to folks that it is real?

Adoption by document “receivers”

Decentralized Verification



Texas Digital Notary Verification

What is the DID for this document?

Example: did:ethr:0x6efedeac20e79071251fffa655F1bdDCa65c027

Document

Upload your file by dropping it here...

or by clicking here

Upload File

Submit



Texas Digital Notary Verification

What is the DID for this document?

did:ethr:0xe0b1833c7032aAc188d4661aF9295623F40fc956



Document

>

Checking for valid notarization...



Document is digitally signed

>



Document has not been altered

>



Verifying notary's secure key from state
notary list...

>

Checking for transferability...



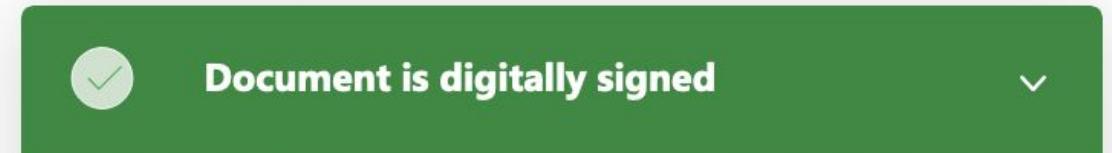
Processing...

>

Adoption by document “receivers”

Radical Transparency: Auditability

Notarization is valid



Document is digitally signed

What's happening? Technical Steps

1 Retrieve the information stored on the blockchain at the Decentralized Identified address (DID) and resolve it to obtain the first JWT payload.

INPUT
DID Address:
`did:ethr:0xe0b1833c7032aAc1B8d4661aF9295623F40fc956`

OUTPUT
Public Keys:
`did:ethr:0xe0b1833c7032aAc1B8d4661aF9295623F40fc956#controller`
JWT Payload:
`eyJ0eXAiOiJKV1QiLCJhbGciOiJFUzI1NkstUiJ9...`

Adoption by document “receivers”

Radical Transparency: Plain Language

Notarization is valid

Document is digitally signed

What's happening? Technical Steps

In the cryptographic world, there are two types of keys: **private and public**. Both keys can be used to encrypt and decrypt documents. Every user has at least one of each.

The diagram illustrates the concept of private and public keys. On the left, a character labeled 'Julia (Notary)*' is shown with two keys: a large black 'Private' key and a smaller grey 'Public' key. A note below states: 'x2 Private Public'. On the right, a character labeled 'Bob (Owner)' is shown with a blue 'Private' key and a light blue 'Public' key. A note below states: 'Private Public'.

*Note: Notaries have two sets of Private/Public Keys (PEM keys and Blockchain keys)

5

Privacy & Administration

How we deliver on



Design Principles



Private

You alone retain the ability to share, revoke, or delete access of your identity documents.



Self-Determinant

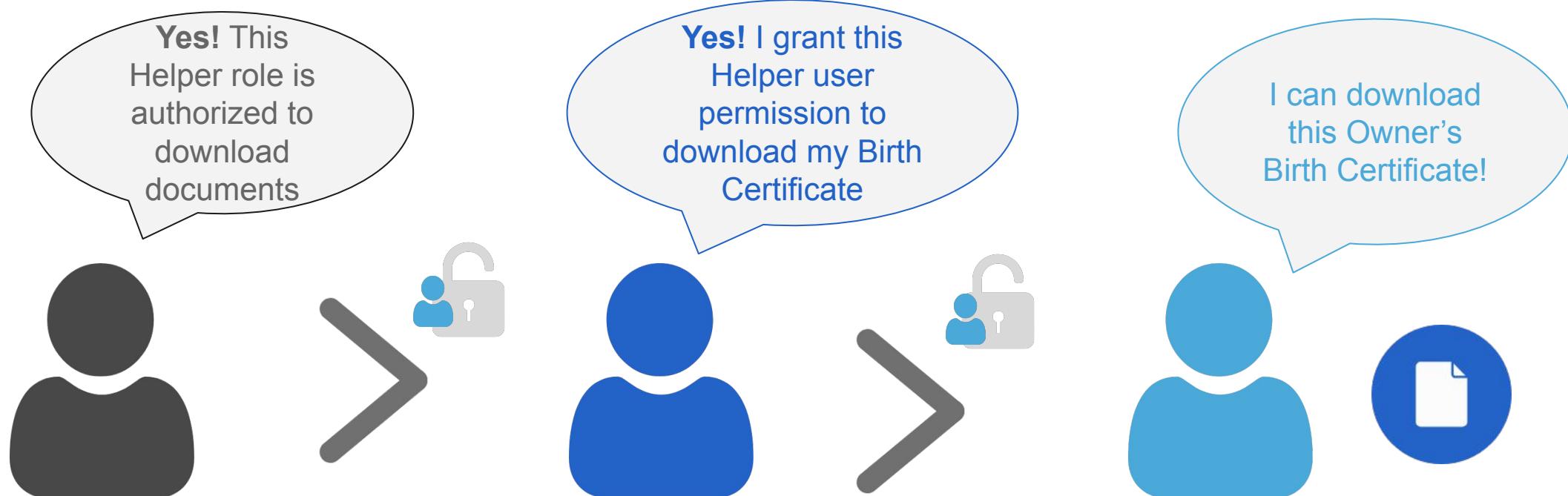
In the face of a system that perceives you through data you don't control, LifeFiles gives you full control over the documents that represent you (to facilitate access to services you may need).

Permissions Hierarchy

Helper permissions are determined in the following order:

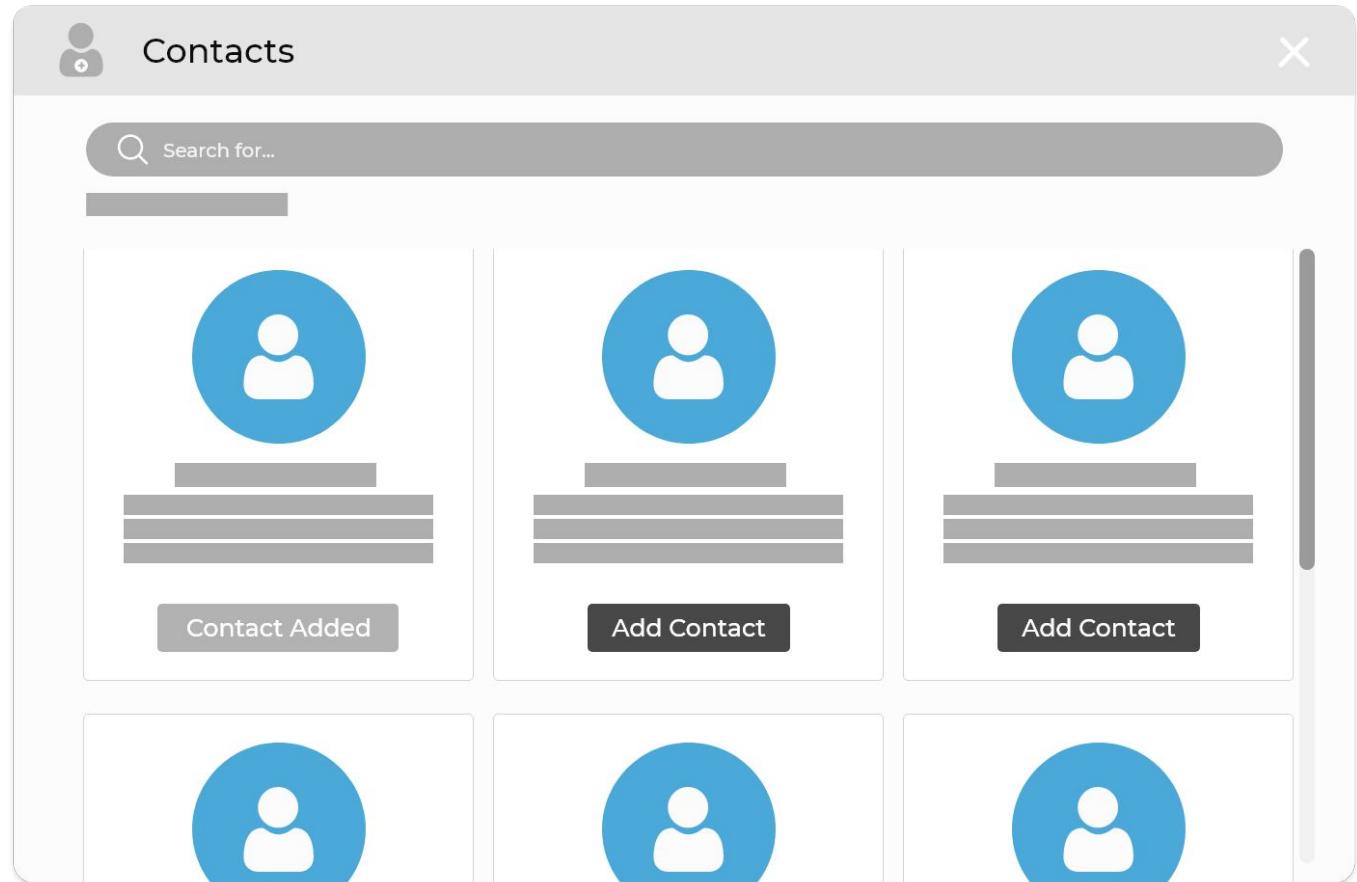
1. Whether the **Admin** has granted the user type access to the feature
2. Whether the **Owner** has shared the relevant permission with the helper

For example, if a Helper user needs to download an Owner's Birth Certificate...



How it works: Owners connect to Helpers

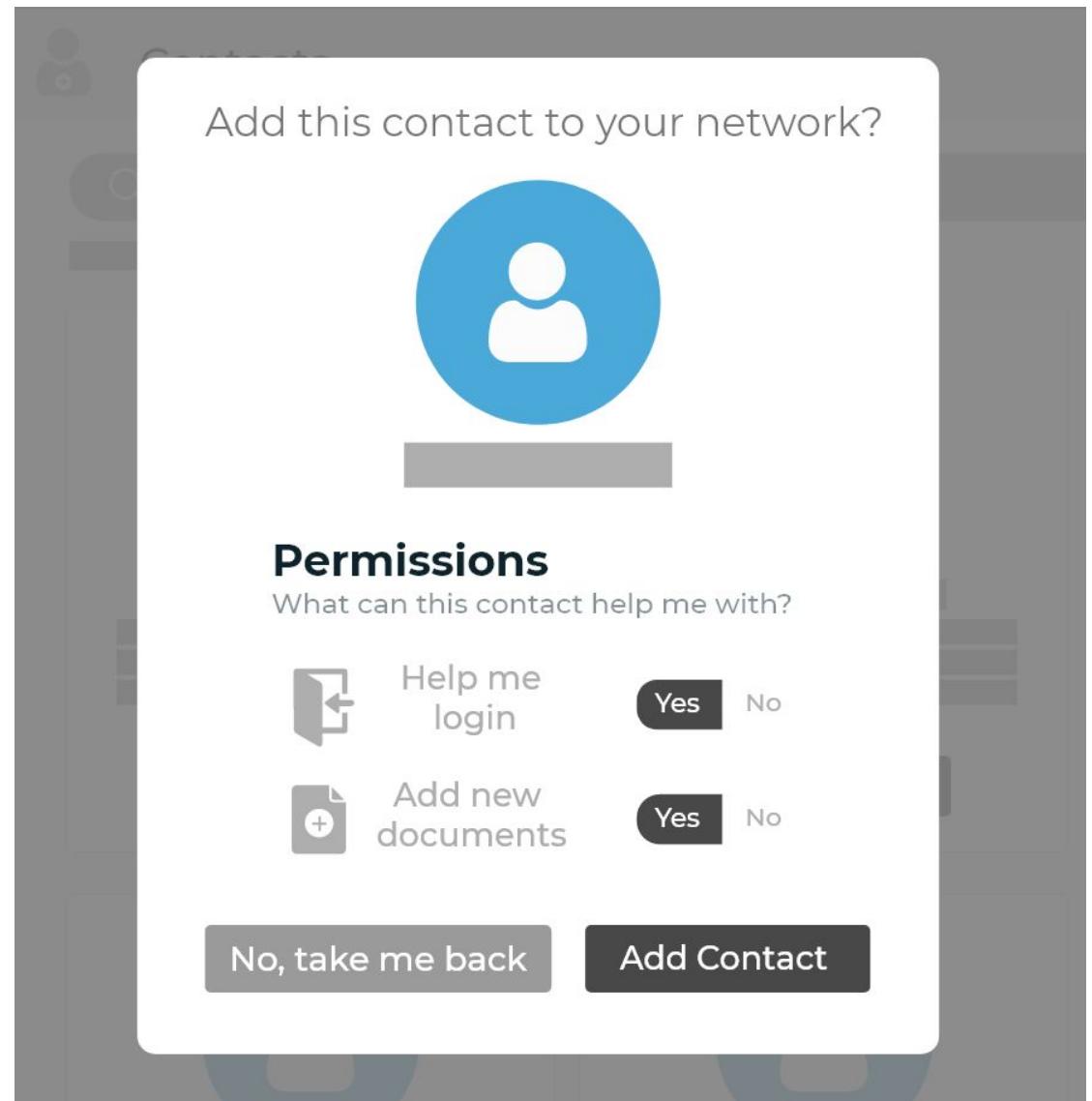
Document Owners **add** Helpers to their network as contacts to get assistance with their documents



How it works: Owners Give Permission to Helpers

When **Owners** add a **Helper** contact for the first time, they set the permissions to...

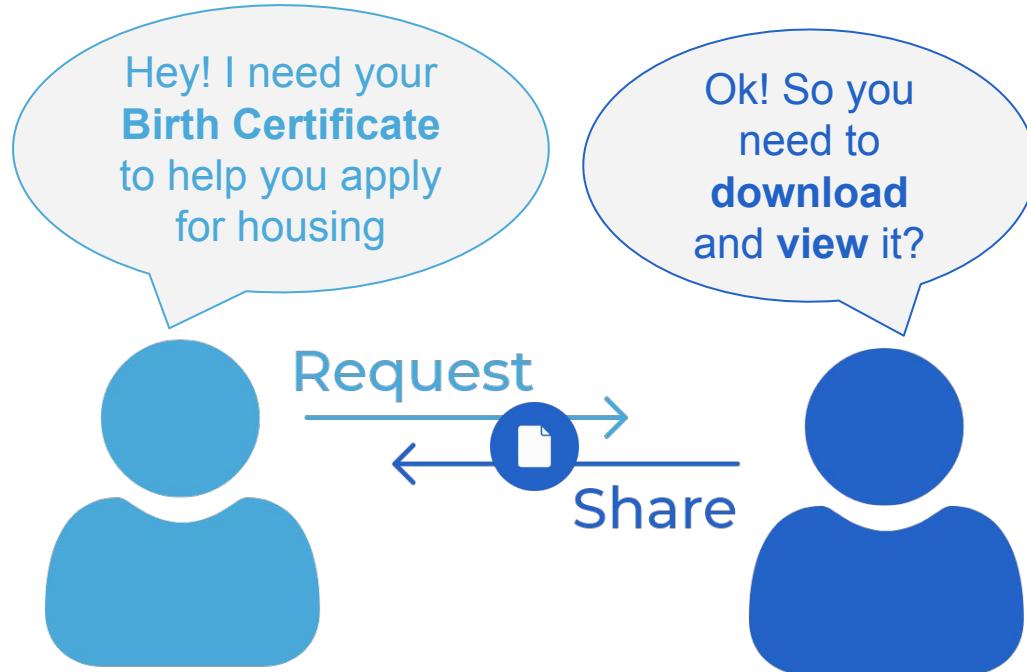
- Recover their account by help them login using a code (social attestation)
- Upload documents on their behalf



How it works: Owners set Permissions at the Document Level

Once connected, **Helpers** can request access to **Owner** documents and owners can grant them the following permissions...

- Can this person **view** my document?
- Can this person **download** my document?
- Can this person **replace** my document?

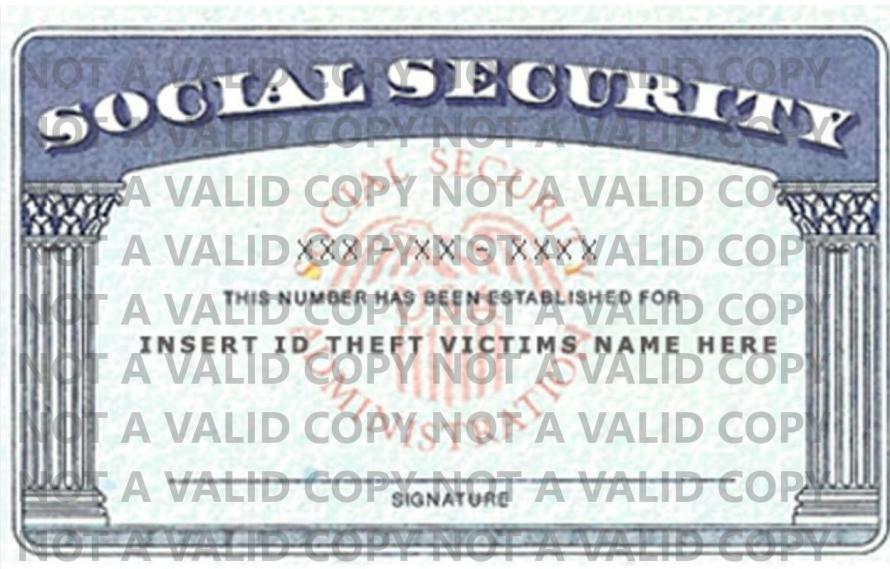


Permissions

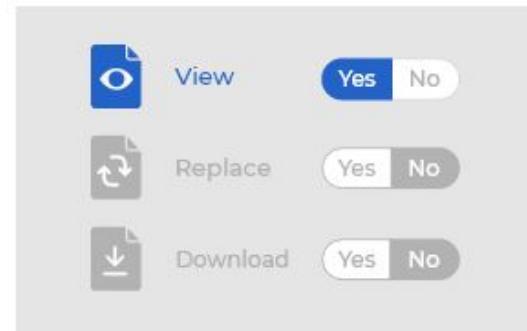
	View	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
	Replace	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
	Download	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

How it works: Document Permissions

When a document Owner shares **view**, but **not download** access to a document, the file image is covered with a **watermark** to invalidate it as a digital copy and protect the Owner's document

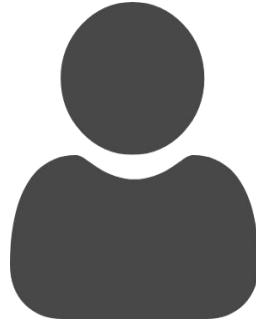


Permissions



Platform Administrator

Behind the scenes, there is a third type of user in LifeFiles



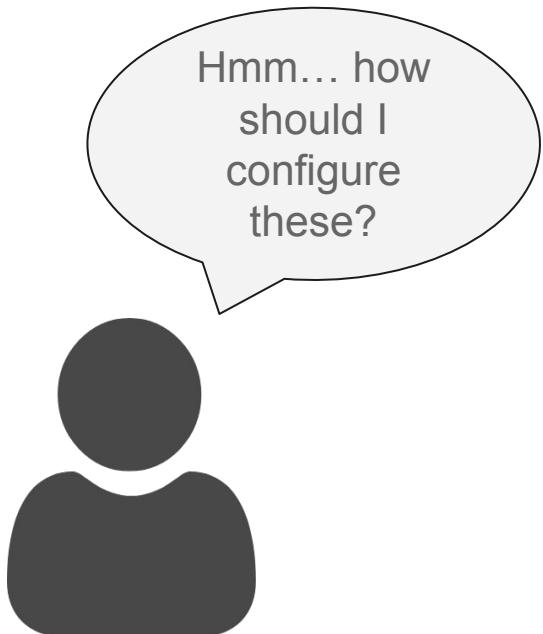
Administrator

LifeFiles Administrators can adapt the application to the contextual needs.

Responsibilities include setting up document types, delineating role permissions and toggling features for Owners and Helpers.

Admin Page

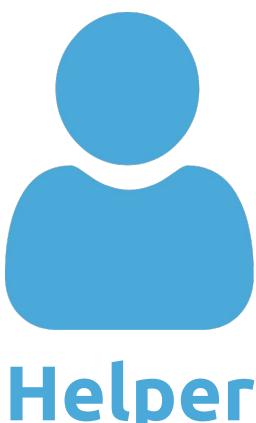
Through the *Admin page*, an administrator can toggle features and functions on or off for each user type...



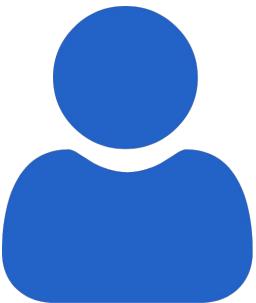
- Can preview files
- Can download files
- Can replace files
- Can add contacts



- Can preview files
- Can download files
- Can replace files
- Can add contacts



Admin Page



Document Owner

- Document owners by default have access to most of LifeFiles features and functions.
- To maintain full autonomy over their documents, their respective permissions should ***always be kept unrestricted*** by the platform's administrator

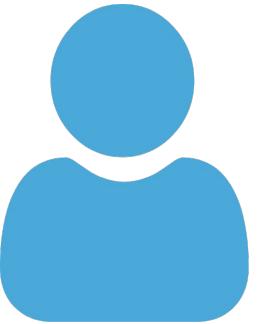


Ok! So owners get to have all of these.

Owner

- | Owner |
|--|
| <input checked="" type="checkbox"/> Can upload documents |
| <input checked="" type="checkbox"/> Can replace documents |
| <input checked="" type="checkbox"/> Can delete documents |
| <input checked="" type="checkbox"/> Can update expiration date |
| <input checked="" type="checkbox"/> Can update account info |
| <input checked="" type="checkbox"/> Can approve share requests |
| <input checked="" type="checkbox"/> Can push shared documents |
| <input checked="" type="checkbox"/> Can revoke shared documents |
| <input checked="" type="checkbox"/> Can set time limit for share |
| <input checked="" type="checkbox"/> Can share user info |
| <input checked="" type="checkbox"/> Can view helpers to share |

Admin Page



Ok! So these
can be
modified as
needed.



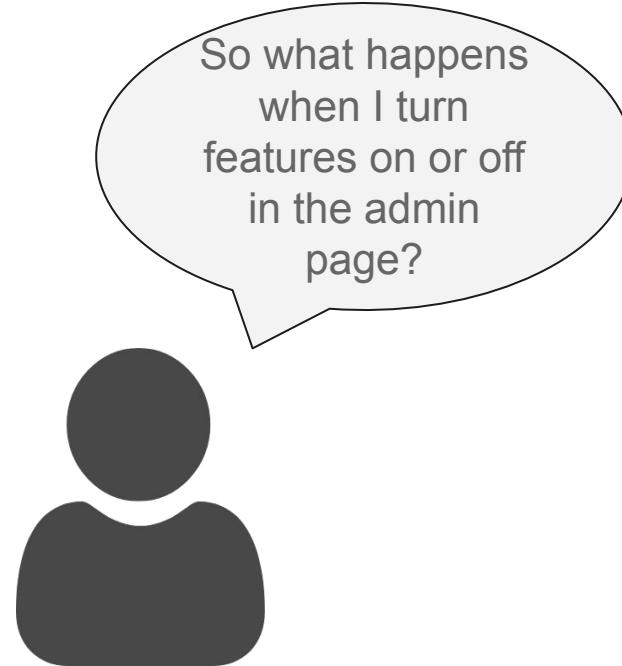
Document Helper

- Document Helpers are can be modified to fit the one of several administration models (pre-configured administrative settings)
- Admins **can create multiple Helper account types** with varying permissions depending on the needs of the organization that adopts LifeFiles

Verified Helper

<input checked="" type="checkbox"/> Can upload docs on behalf of owner	<input checked="" type="checkbox"/> Can upload do
<input checked="" type="checkbox"/> Can replace owners docs	<input checked="" type="checkbox"/> Can replace ow
<input checked="" type="checkbox"/> Can delete owners docs	<input checked="" type="checkbox"/> Can delete ow
<input checked="" type="checkbox"/> Can update expiration date	<input checked="" type="checkbox"/> Can update exp
<input checked="" type="checkbox"/> Can update owner user info	<input checked="" type="checkbox"/> Can update ow
<input checked="" type="checkbox"/> Can request a shared document	<input checked="" type="checkbox"/> Can request a s
<input checked="" type="checkbox"/> Can share doc with others	<input checked="" type="checkbox"/> Can share doc
<input checked="" type="checkbox"/> Can revoke share request	<input checked="" type="checkbox"/> Can revoke sha
<input checked="" type="checkbox"/> Can set time limit for share	<input checked="" type="checkbox"/> Can set time lim
<input checked="" type="checkbox"/> Can view owners to request share	<input checked="" type="checkbox"/> Can view own
<input checked="" type="checkbox"/> Can view existing file to request share	<input checked="" type="checkbox"/> Can view existi
<input checked="" type="checkbox"/> Can Notarize Documents	<input checked="" type="checkbox"/> Can Notarize D
<input checked="" type="checkbox"/> Can transfer clients to other helpers	<input checked="" type="checkbox"/> Can transfer cl

Let's Review how Administrative Controls affect the front end experience



VIEW

REQUEST

(RE)UPLOAD/DOWNLOAD

NOTARIZE



View Permissions

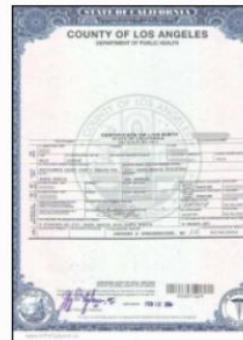
- File thumbnails
- Document preview/info
- User information
- Zoom-in

File Thumbnails

As an **Owner**, I always have the ability to see the thumbnails of my documents



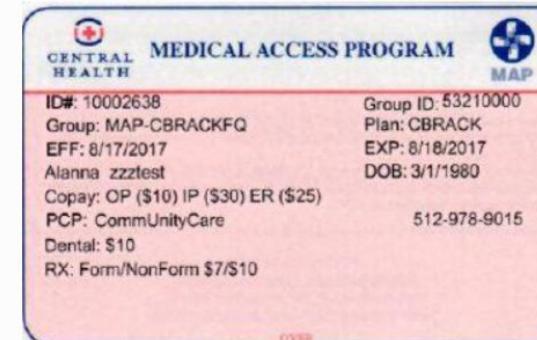
Shared



Birth Certificate
SHARED WITH



Unshared

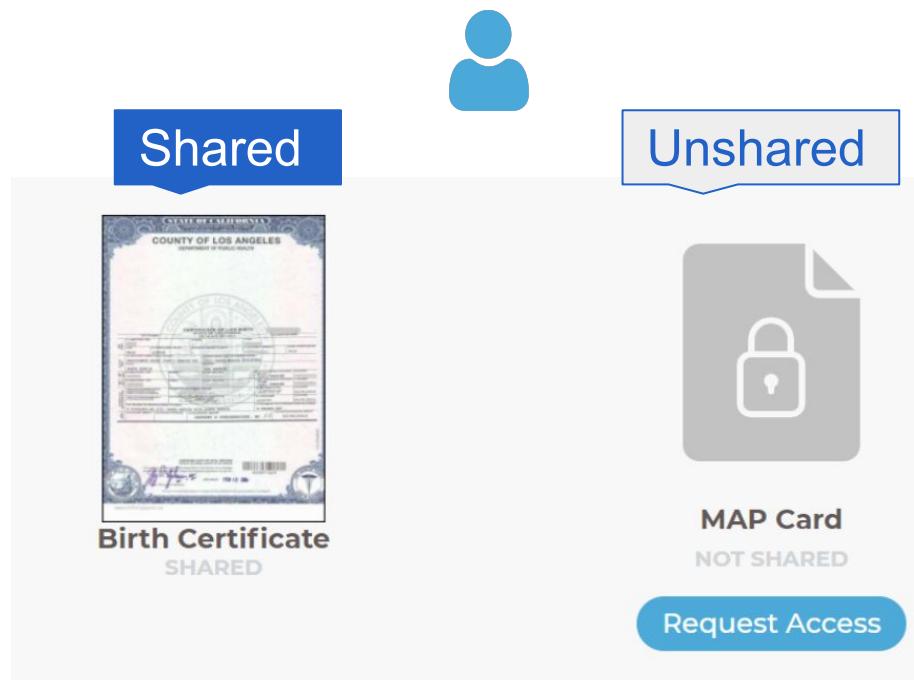


MAP Card

File Thumbnails

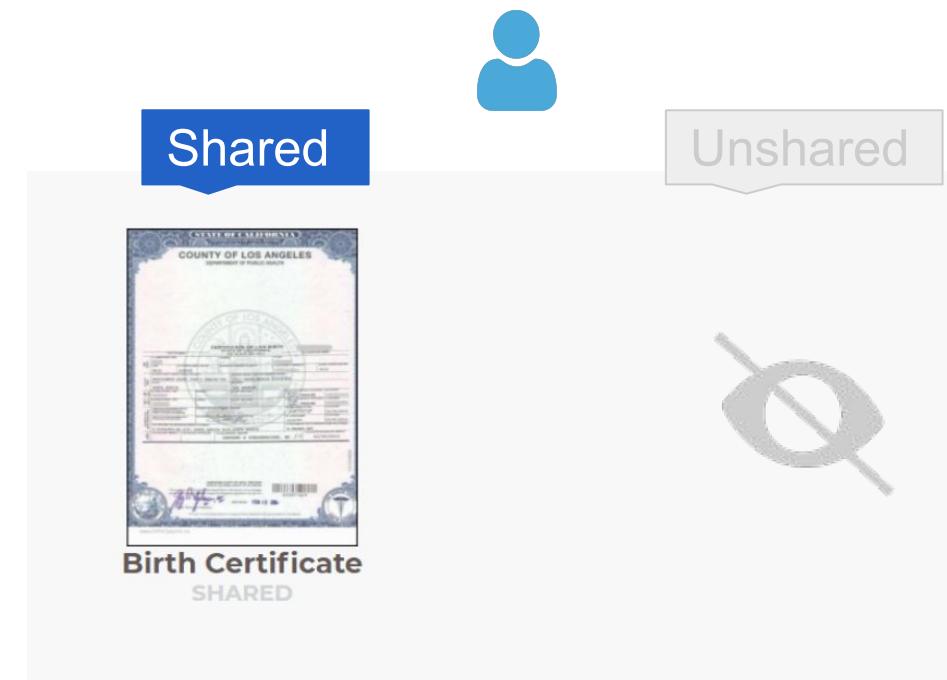
As a **Helper**, my ability to see document thumbnails varies...

has the **Owner** shared it with me?



Can view existing file to request share

has the **Administrator** authorized me to see them?



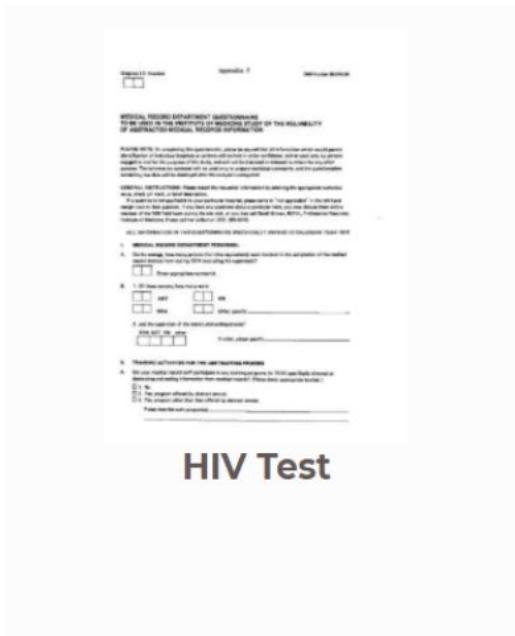
Can view existing file to request share

As an **Admin**, I can limit Helper's ability to see file thumbnails

File Thumbnails (Protected Docs)



As an **Owner**, I can always see my private (protected) documents.



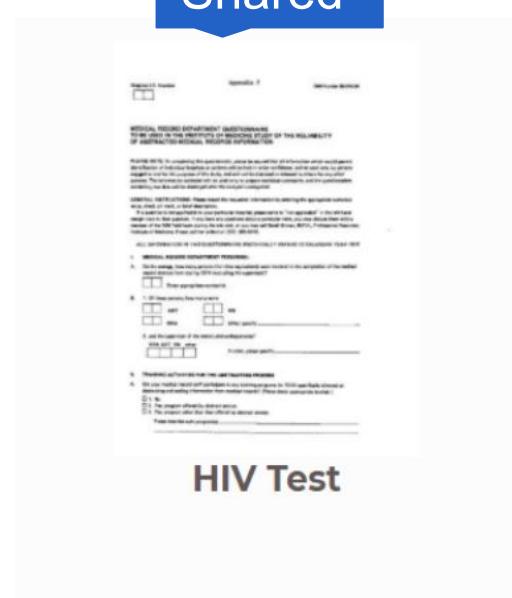
HIV Test

Name	Protected
Medical Record	



As a **Helper**, I can't see an Owner's private (protected) document unless they share it with me

Shared



HIV Test

Unshared



As an **Admin**, I determine whether or not a document type is considered Private/Protected

Document Preview

As an **Owner**, I can always preview documents on my account and share this permission to helpers in my network



Birth Certificate

[Preview](#) [Replace](#) [Share](#) [Delete](#)

NOTARIZED

INFORMATION [ACTIVITY](#)

File
MAP Card
Upload date
12/12/2020
Expiration Date
N/A
Uploaded by
Kayla Nixon

[Zoom in](#) [Download](#) [Print](#)

Name Patrick Harrison
Organization DFE
Role Case Manager
Phone 512.524.4095
E-mail p.harrison@dfa.com

Share Birth Certificate?

[View](#) Yes No

[Replace](#) Yes No

[Download](#) Yes No

Document Preview

As a **Helper** my ability to preview documents varies...

has the Owner shared it with me?

Shared

Will Foxx - Birth Certificate

Preview Replace

NOTARIZED

File Birth Certificate
Upload date 01/12/2020
Upload by Jacob Gonsalez
Valid until N/A

Zoom in Download Print

has the Administrator authorized me to preview them?

Shared

Will Foxx - Birth Certificate

Preview Replace

File Birth Certificate
Upload date 01/12/2020
Upload by Jacob Gonsalez
Valid until N/A

Zoom in Download Print



As an **Admin**, I can limit
Helper's ability to preview
Owner documents

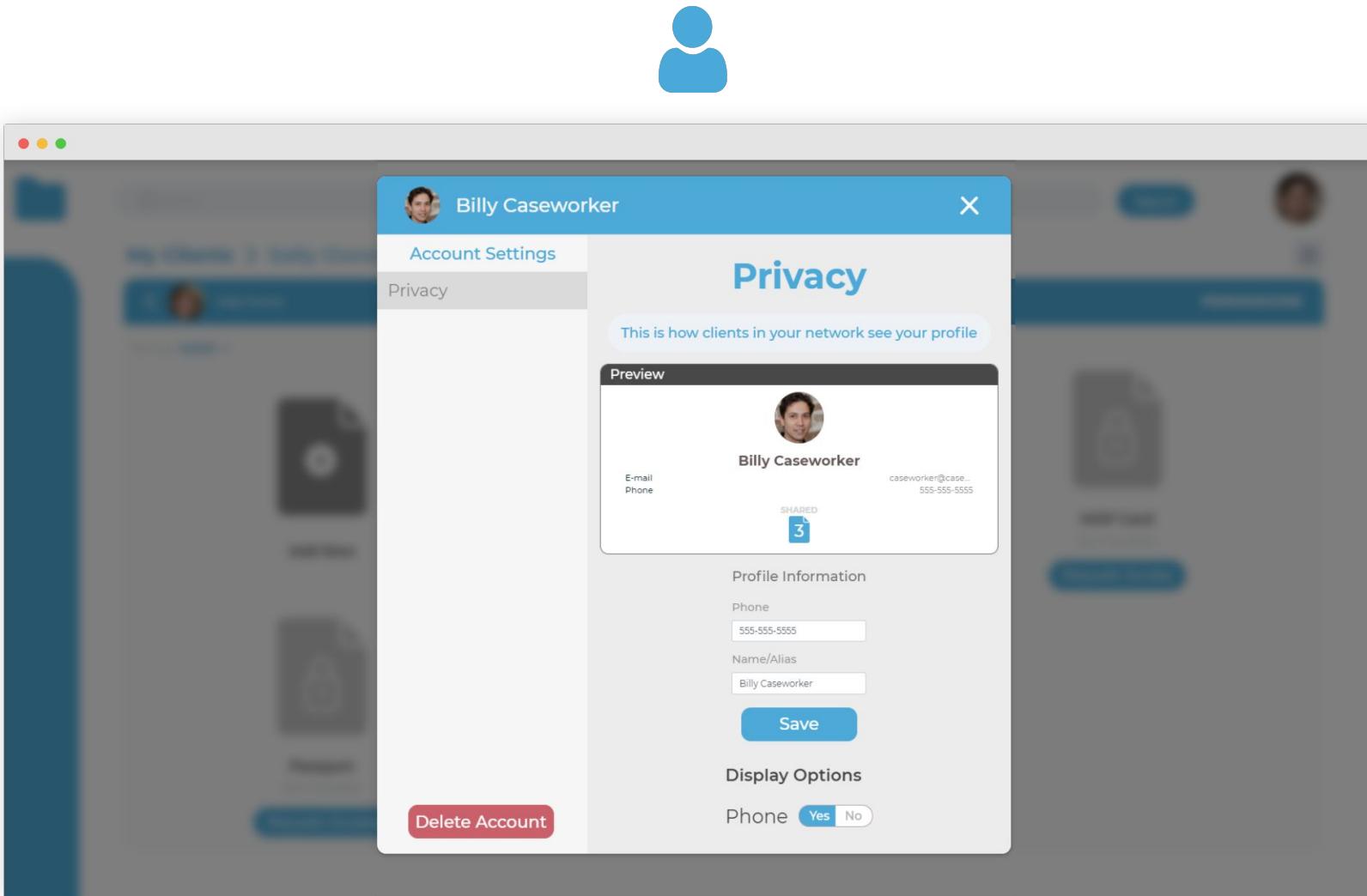


Document Preview

Document Preview

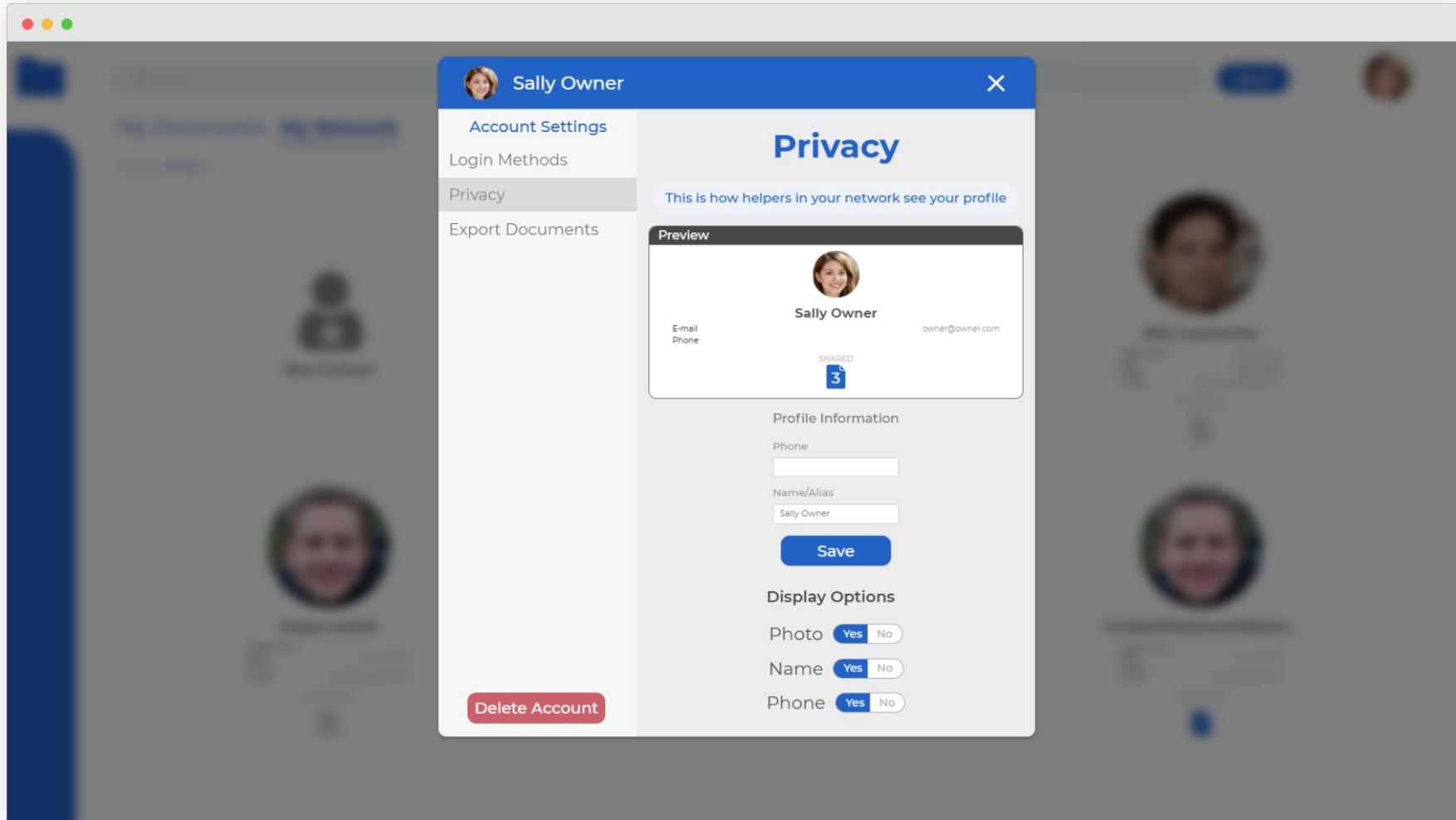
User Information

As a **Helper**, I get to choose what profile information is displayed publicly to all Owners in the platform through my account settings page



User Information

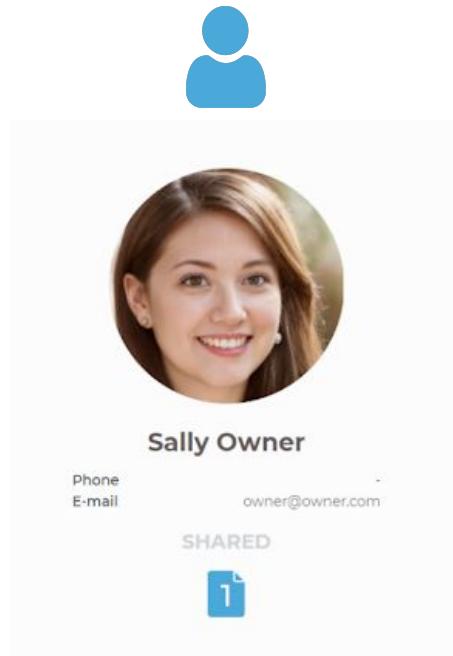
As an **Owner**, I get to choose what profile information is displayed to my added Helper contacts through my account settings page



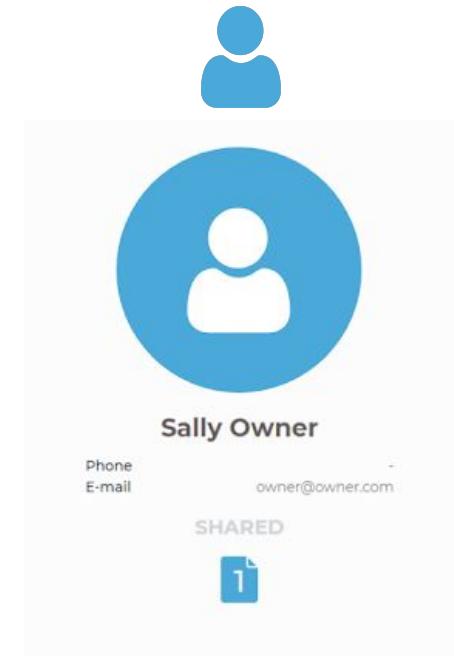
User Information

As a **Helper** my ability to preview owner user information varies...

what information has this document **Owner** shared?



has the **Administrator** authorized me to see it?



As an **Admin**, I can limit Helper's ability to see Owner users' profile information

VIEW

REQUEST

(RE)UPLOAD/DOWNLOAD

NOTARIZE

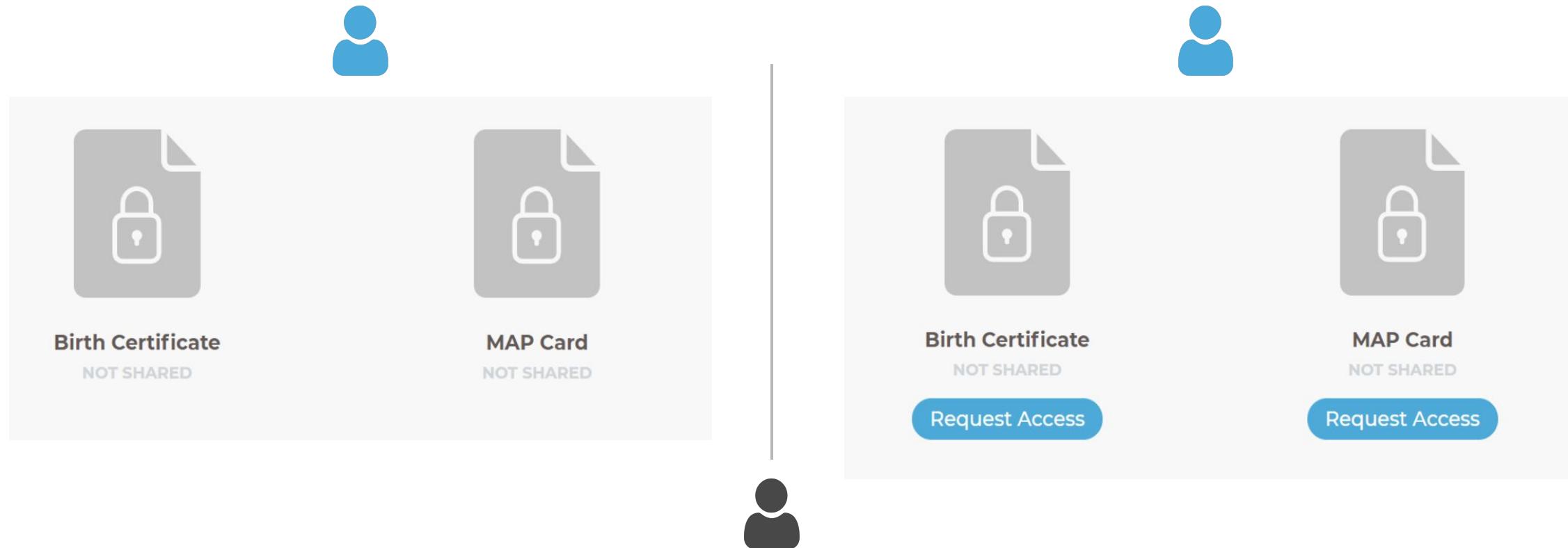


Request Permissions

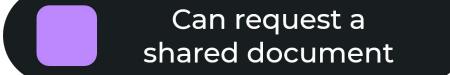
- Initiate or cancel document share request
- Set time limits on share requests

Document Request

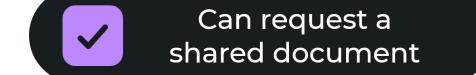
As a **Helper** I can request for an Owner to share a document with me unless restricted by an Admin



As an **Admin**, I can limit Helper's ability to request an Owner to share their documents



Can request a shared document



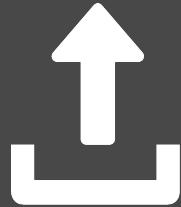
Can request a shared document

VIEW

REQUEST

(RE)UPLOAD/DOWNLOAD

NOTARIZE



(Re)Upload/Download Permissions

- Upload documents on behalf of Owners
- Download Owner documents
- Replace Owner documents

Document Upload

As an **Owner**, I can always upload documents to my account, and also grant Helpers in my network the permission to upload documents on my behalf



Add this contact to your network?



Jacob Smith

Permissions

What can this contact help me with?

	Help me login	Yes	No
	Add new documents	Yes	No

[No, take me back](#) [Add Contact](#)

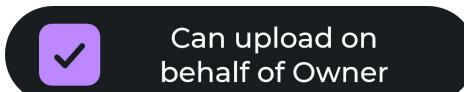
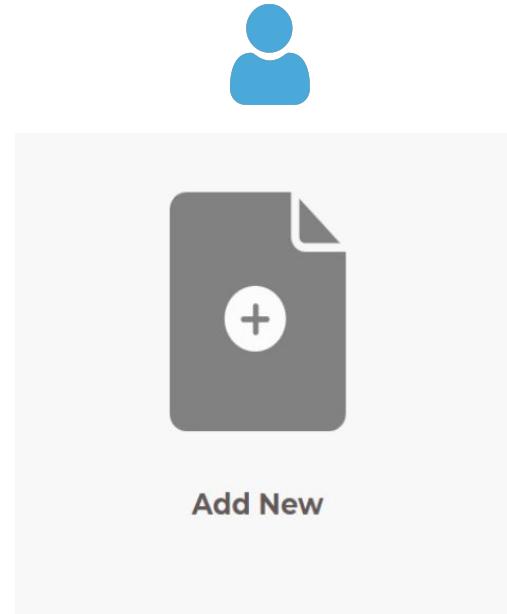


Add New

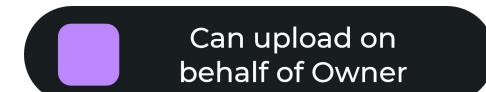
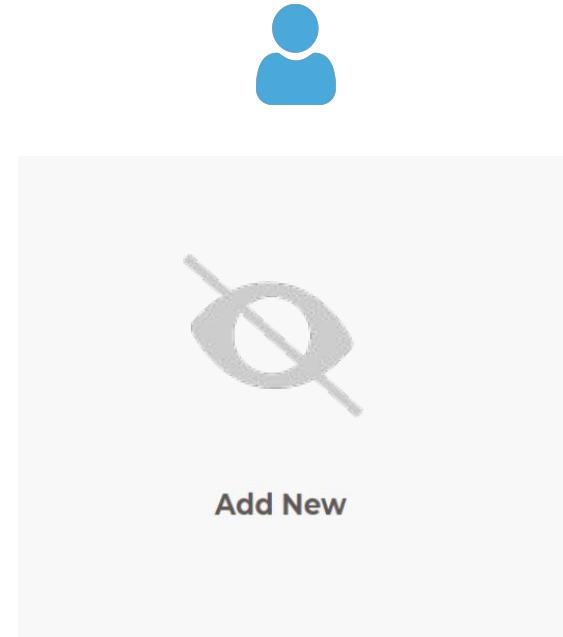
Document Upload

As a **Helper** my ability to upload documents on an Owner's behalf varies...

has the Owner granted me this permission as a contact?



has the Administrator authorized me upload to documents for others?



As an **Admin**, I can limit Helper's ability to request an Owner to share their documents

Document Replace

As an **Owner**, I can always replace documents on my account and share this permission to helpers in my network



Birth Certificate X

Preview **Replace** Share trash

Upload your file by dropping it here...

or by clicking here

Upload File

Note: All your share settings will be saved and contacts you've shared this document with will still have access after replacing it.

Save



Patrick Harrison
DFE
Case Manager
512.524.4095
p.harrison@dfa.com

Share Birth Certificate?

View Yes No

Replace Yes No

Download Yes No

Document Replace

As a **Helper** my ability to replace documents on an Owner's behalf varies...

has the **Owner** granted me this permission over their document?



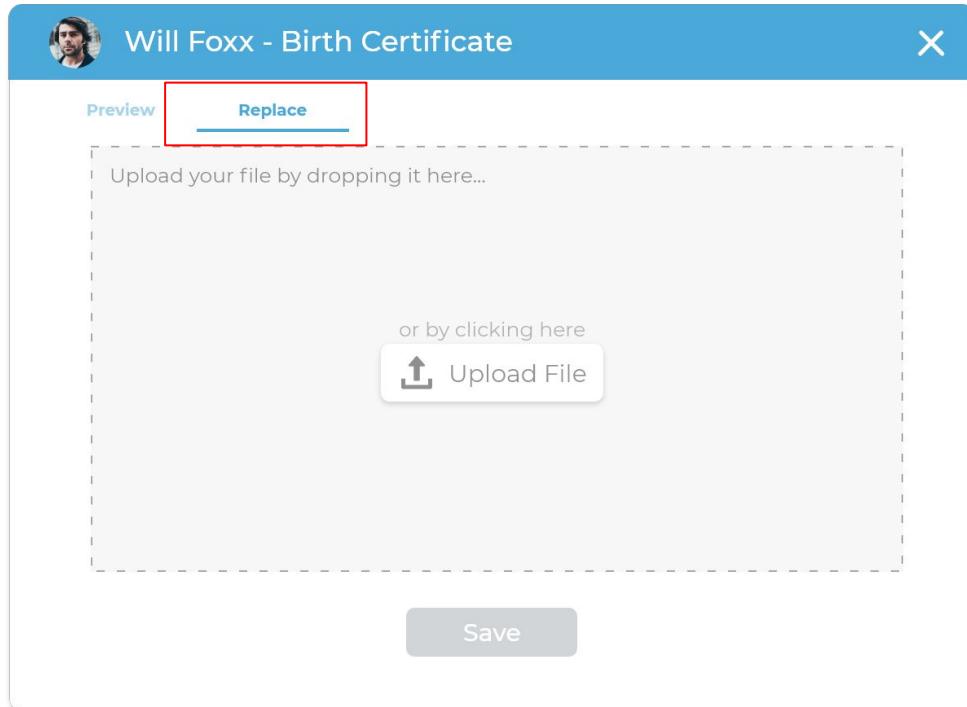
Will Foxx - Birth Certificate

Preview **Replace**

Upload your file by dropping it here...

or by clicking here Upload File

Save



Can replace
Owner's docs

has the **Administrator** authorized me to replace Owner documents?



Will Foxx - Birth Certificate

Preview

NOTARIZED



File: Birth Certificate
Upload date: 01/12/2020
Upload by: Jacob Gonsalez
Valid until: N/A

Zoom in Download Print



As an **Admin**, I can limit a Helper's ability to replace Owner documents



Can replace
Owner's docs

Document Download

As an **Owner**, I can always download documents on my account and share this permission over my documents to Helpers in my network



Birth Certificate X

[Preview](#) [Replace](#) [Share](#) trash

NOTARIZED

INFORMATION **ACTIVITY**

File
MAP Card
Upload date
12/12/2020
Expiration Date
N/A
Uploaded by
Kayla Nixon

[Zoom in](#) [Download](#) [Print](#)

Name Patrick Harrison
Organization DFE
Role Case Manager
Phone 512.524.4095
E-mail p.harrison@dfc.com

Share Birth Certificate?

View Yes No
 Replace Yes No
 Download Yes No

Document Download

As a **Helper** my ability to download documents on an Owner's behalf varies...

has the Owner granted me this permission over their document?



Will Foxx - Birth Certificate

Preview

NOTARIZED



File
Birth Certificate
Upload date
01/12/2020
Upload by
Jacob Gonsalez
Valid until
N/A

[Zoom in](#) [Download](#) [Print](#)



Can download
Owner's docs

has the Administrator authorized me download Owner documents?



Will Foxx - Birth Certificate

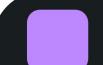
Preview

NOTARIZED



File
Birth Certificate
Upload date
01/12/2020
Upload by
Jacob Gonsalez
Valid until
N/A

[Zoom in](#) [Download](#) [Print](#)



Can download
Owner's docs

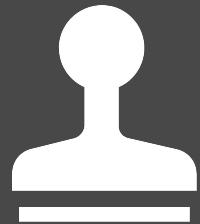
As an **Admin**, I can limit a Helper's ability to *download* Owner documents

VIEW

REQUEST

(RE)UPLOAD/DOWNLOAD

NOTARIZE



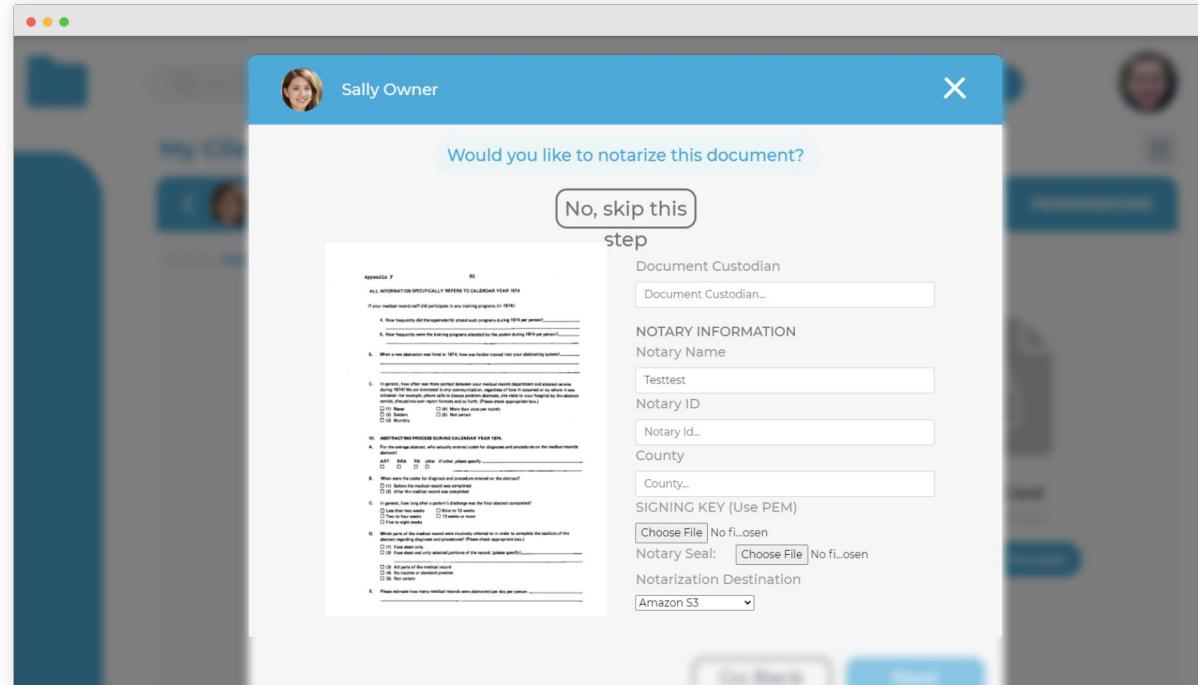
Notarize Permissions

- Create and upload certified copies for document Owners

Document Notarization

As a **Helper** my ability to notarize documents on an Owner's behalf varies...

- are my Texas notary credentials valid and up to date?
- is the document a type that supports notarization?
- has the Administrator authorized me to *notarize* Owner documents?



Can notarize
Owner's docs



As an **Admin**, I can limit a Helper's
ability to *notarize* Owner documents

Admin Page (Helper Permissions)

[Full breakdown](#)



Verified Helper	Verified Helper Notary	Dedicated Notary	Unverified Helper
<input checked="" type="checkbox"/> Can upload docs on behalf of owner	<input checked="" type="checkbox"/> Can upload docs on behalf of owner	<input checked="" type="checkbox"/> Can upload docs on behalf of owner	<input type="checkbox"/> Can upload docs on behalf of owner
<input checked="" type="checkbox"/> Can replace owners docs	<input checked="" type="checkbox"/> Can replace owners docs	<input checked="" type="checkbox"/> Can replace owners docs	<input type="checkbox"/> Can replace owners docs
<input checked="" type="checkbox"/> Can delete owners docs	<input checked="" type="checkbox"/> Can delete owners docs	<input checked="" type="checkbox"/> Can delete owners docs	<input type="checkbox"/> Can delete owners docs
<input checked="" type="checkbox"/> Can update expiration date	<input checked="" type="checkbox"/> Can update expiration date	<input checked="" type="checkbox"/> Can update expiration date	<input type="checkbox"/> Can update expiration date
<input checked="" type="checkbox"/> Can update owner user info	<input checked="" type="checkbox"/> Can update owner user info	<input checked="" type="checkbox"/> Can update owner user info	<input type="checkbox"/> Can update owner user info
<input checked="" type="checkbox"/> Can request a shared document	<input checked="" type="checkbox"/> Can request a shared document	<input checked="" type="checkbox"/> Can request a shared document	<input type="checkbox"/> Can request a shared document
<input checked="" type="checkbox"/> Can share doc with others	<input checked="" type="checkbox"/> Can share doc with others	<input checked="" type="checkbox"/> Can share doc with others	<input type="checkbox"/> Can share doc with others
<input checked="" type="checkbox"/> Can revoke share request	<input checked="" type="checkbox"/> Can revoke share request	<input checked="" type="checkbox"/> Can revoke share request	<input type="checkbox"/> Can revoke share request
<input checked="" type="checkbox"/> Can set time limit for share	<input checked="" type="checkbox"/> Can set time limit for share	<input checked="" type="checkbox"/> Can set time limit for share	<input type="checkbox"/> Can set time limit for share
<input checked="" type="checkbox"/> Can view owners to request share	<input checked="" type="checkbox"/> Can view owners to request share	<input checked="" type="checkbox"/> Can view owners to request share	<input type="checkbox"/> Can view owners to request share
<input checked="" type="checkbox"/> Can view existing file to request share	<input checked="" type="checkbox"/> Can view existing file to request share	<input checked="" type="checkbox"/> Can view existing file to request share	<input type="checkbox"/> Can view existing file to request share
<input checked="" type="checkbox"/> Can Notarize Documents	<input checked="" type="checkbox"/> Can Notarize Documents	<input checked="" type="checkbox"/> Can Notarize Documents	<input type="checkbox"/> Can Notarize Documents
<input checked="" type="checkbox"/> Can transfer clients to other helpers	<input checked="" type="checkbox"/> Can transfer clients to other helpers	<input checked="" type="checkbox"/> Can transfer clients to other helpers	<input type="checkbox"/> Can transfer clients to other helpers

Note: Owner permissions can also be configured by an Admin, but should never be disabled as this platform is all about giving Owners the capacity to be self-determinant

VIEW

REQUEST

(RE)UPLOAD/DOWNLOAD

NOTARIZE



Default Administrative Settings

Organization + Owner-based verification

We considered 4 types of administrative models, and decided on a hybrid closed model, where there are two types of Administrators



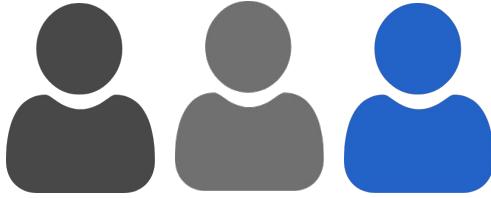
Super Admins have two responsibilities:

- Onboard organizations and sub-admins into LifeFiles
- Provide technical maintenance

Sub-Admins have one responsibility:

- Verify, onboard and monitor Helper users of their organization in LifeFiles

What is the Hybrid - closed model?



Organization-based verification

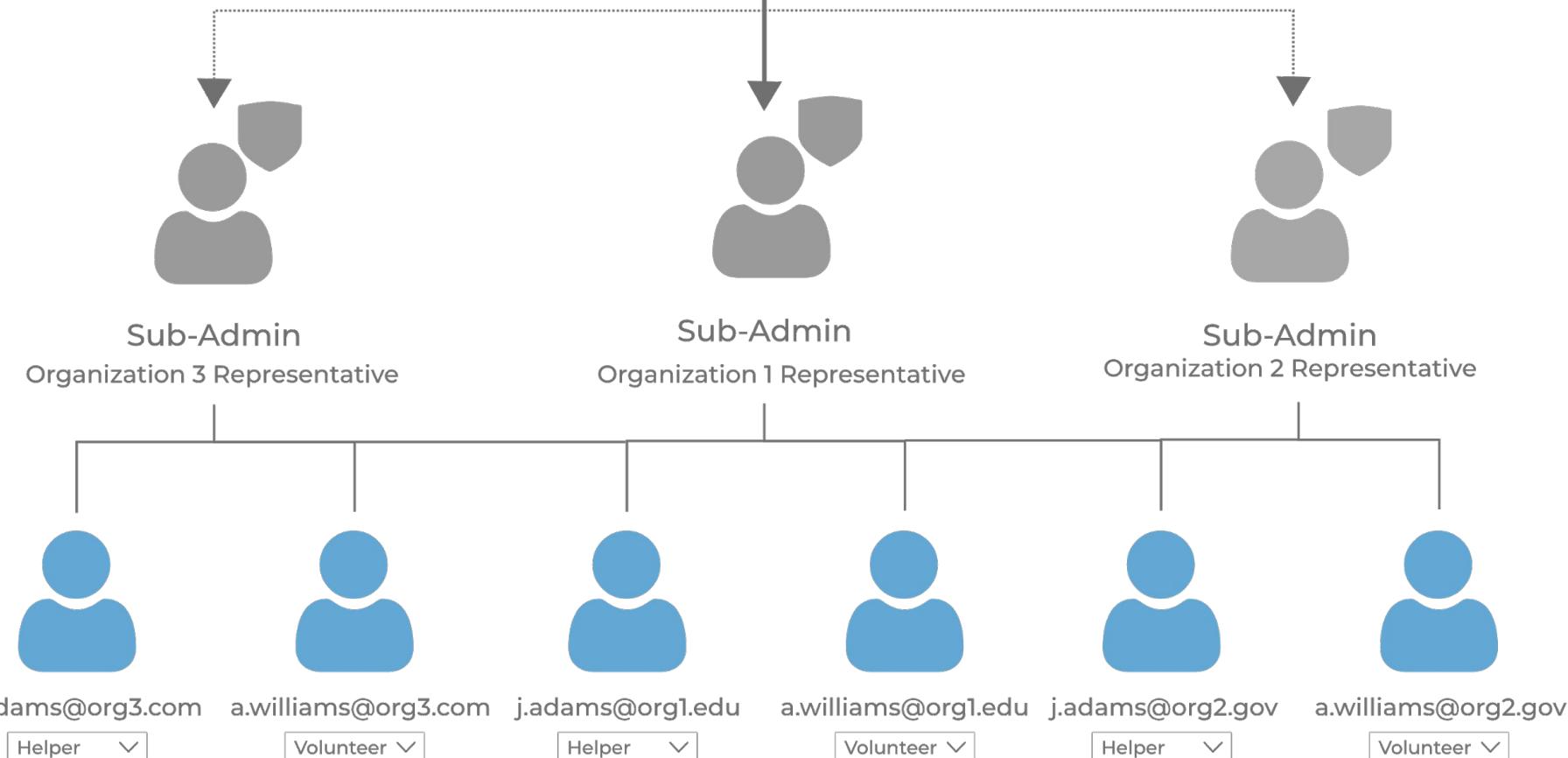
Helper permissions depend on the account type a representative of their organization (sub-admin) sets for them. Helpers are **verified by a sub-admin** and **authorized by an owner**

Helper Onboarding Overview



Super Admin

Super Admin can also fork out LifeFiles to organizations



Advantages

High level of control and user protection

A tightly controlled platform means a high level of protection over its users

Lessens the Admin effort

Organization Sub-Admins onboarding their own helpers to reduce effort on the Super Admin side

Bad actors handled by the organization itself

If something goes wrong, the Sub-Admin has the ability to revoke their network's helper accounts.

Ability to create time-limited Helper accounts

Can be automatically de-activated upon expiry (for niche use cases such as doc clinic volunteers)

Official Helper accounts can boost Owner's confidence in LifeFiles

Knowing that a Helper belongs to an organization, may help Owners be less concerned about being preyed upon by impersonators or bad actors

Disadvantages

Family members, advocates and unaffiliated users cannot become Helper users

Making it so that only the Super Admin and Sub Admins have the ability to onboard helper users means people that do not belong to any organization cannot become Helper users (*Unless we explore a possible path for unaffiliated helpers known as 'Personal Helpers'*).

The extra setup process for Sub Admins

The Super Admin needs to work with organizations to onboard a representative into becoming a Sub Admin (this could be a potential bottleneck at first)

Hybrid - Closed model development needs

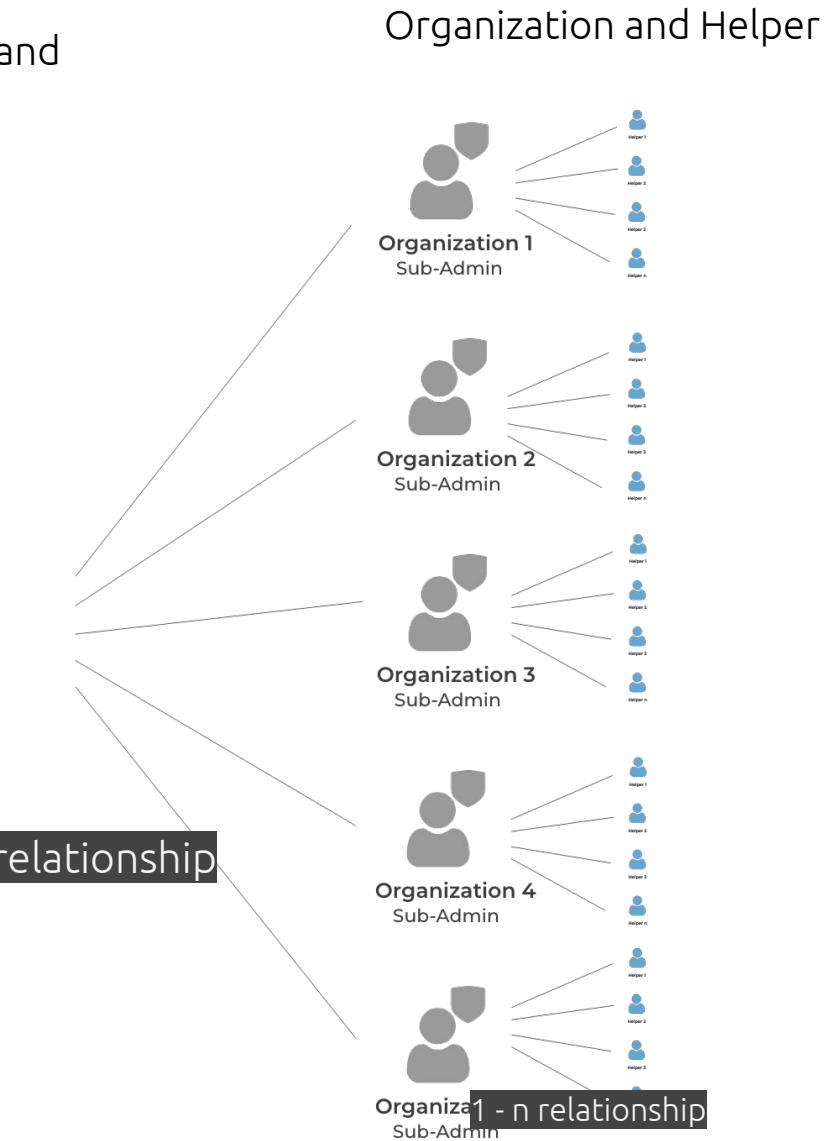
1. Identify the back-end needs for Super-Admin and Admin roles
2. Integration of Texas notary database with platform for notary automation verification
3. Limited time Helper account set-up
4. Owner documents sharing informed decisions feature
5. Confirmatory warnings for sharing documents
6. Revisit the helper role default permissions set-up in Admin platform

COMMON NEEDS ACROSS ALL VERIFICATION MODELS

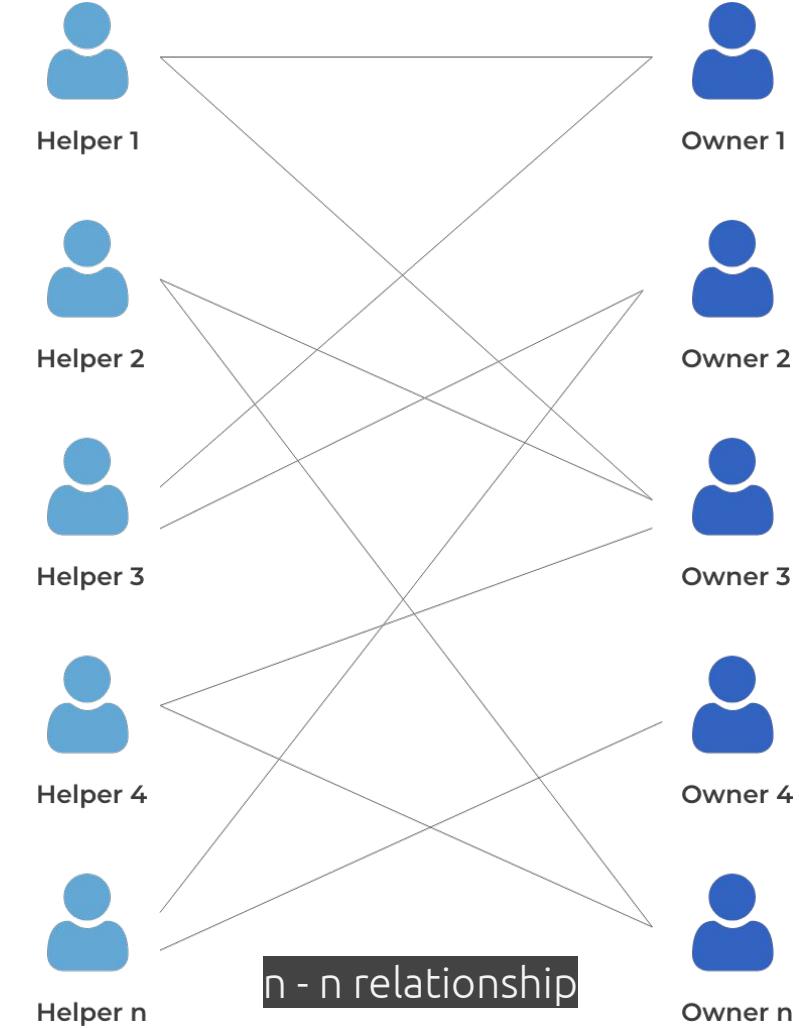
1. Need for Email/Phone number verification via activation link on Helper platform, when Helper creating an account
2. Revisit the helper role default permissions set-up in Admin platform
3. Integration of Texas notary database with platform for notary automation verification

Relationship dynamics

Organization and organization



Helper and Owner



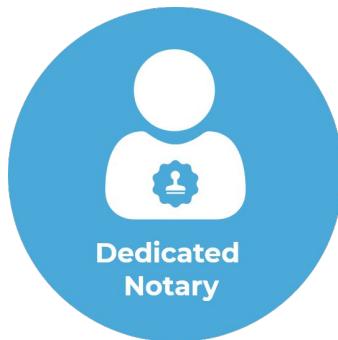
Hybrid - Closed modal Helper user types



Has access to **all permissions** and features on Platform
Upload + Replace + Request + View + Download
*can be granted notarization privileges if Helper is certified notary

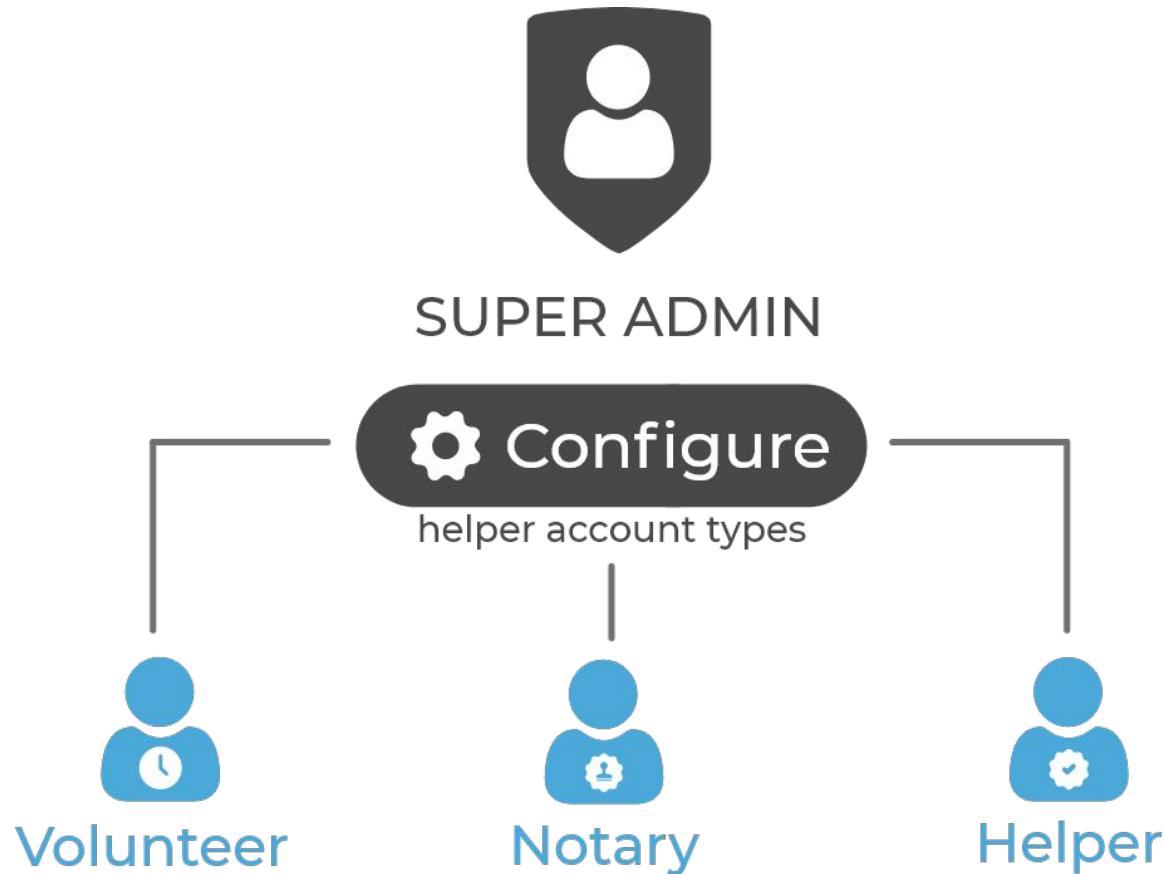


The permissions are **limited to assisting** owners with uploading and replacing documents. These accounts can be temporary and set to expire
(Re)Upload + Replace

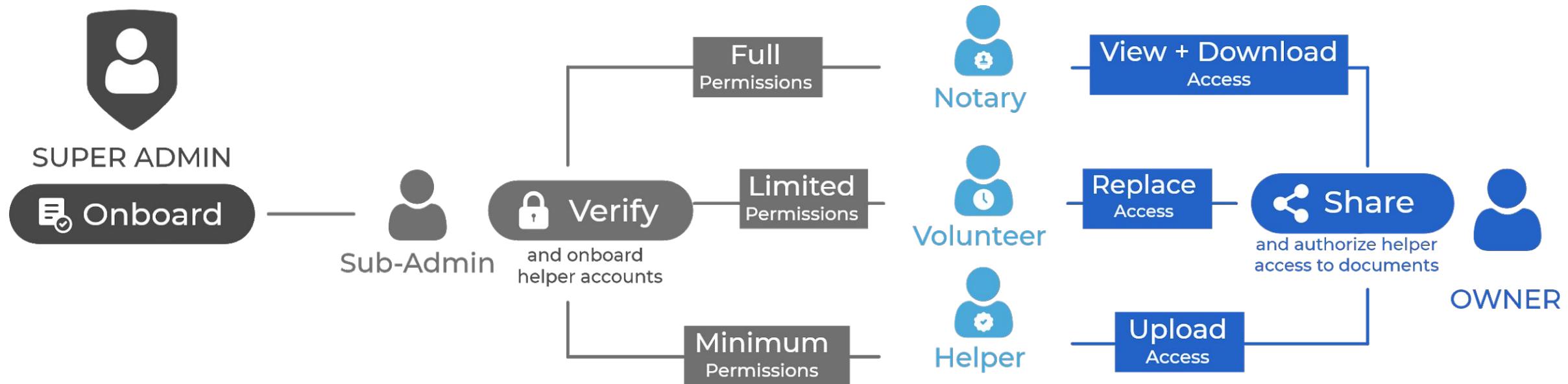


This is a third-party **registered notary** that is in the platform to notarize owner documents and nothing else.
Upload + Reupload + Request + View + Download/Print

Hybrid model permissions overview



Hybrid model permissions overview



Platform Administration & Blockchain

- **There are 3 options for storing notarization data:**
 - a. Etherium
 - b. Rootstack
 - c. Free notarization option available with public S3 bucket from AWS
- **This section identifies how an administrator can establish a blockchain wallet to pay for notarizations**

The notary chooses where the notarial data is stored. If on Etherium or Rootstack, the platform pays for the cost.

Sally Owner

Would you like to notarize this document?

No, skip this step

Document Custodian

Document Custodian...

NOTARY INFORMATION

Notary Name

Notarytest

Notary ID

Notary Id...

County

County...

SIGNING KEY (Use PEM)

Choose File No fi...osen

Notary Seal: Choose File No fi...osen

Notarization Destination

Amazon S3

Ethereum Network

RSK Network

Amazon S3

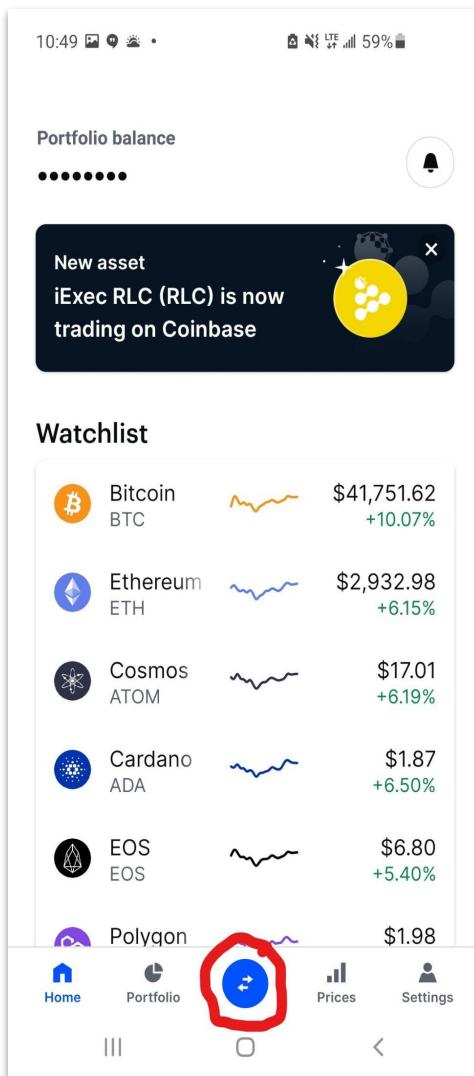
Go Back

Next

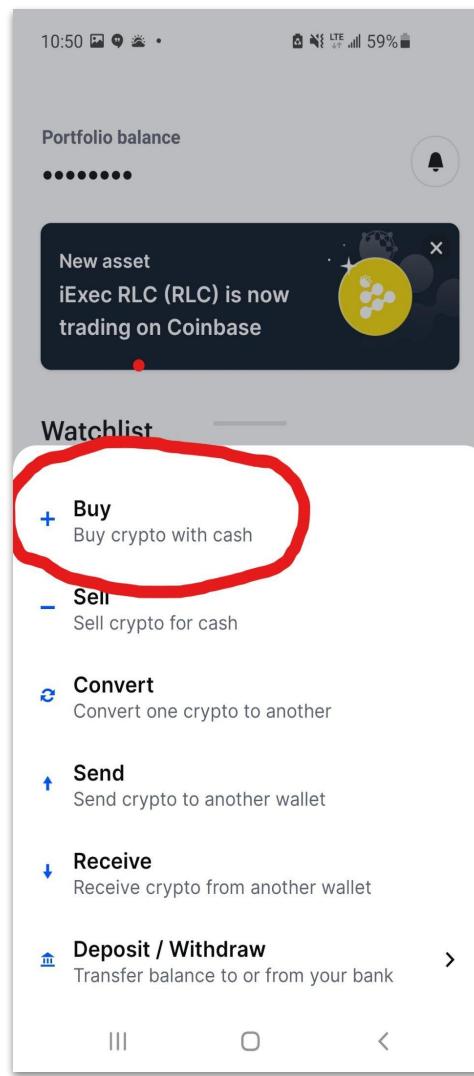
To fund the notarization data on blockchain...

1. Log into or create a blockchain vendor account.
[Binance](#), [Coinbase](#),
[Voyager](#), [Gemini](#)
2. Buy Ethereum or Rootstock.
Here's an example of how to do it with Coinbase...

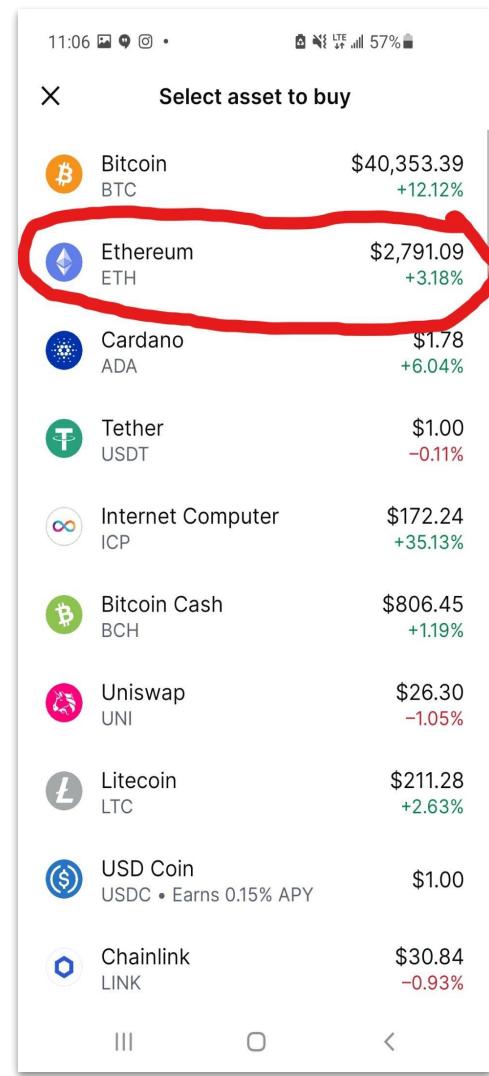
Find a button that allows you to complete transactions...



Select the option to buy crypto



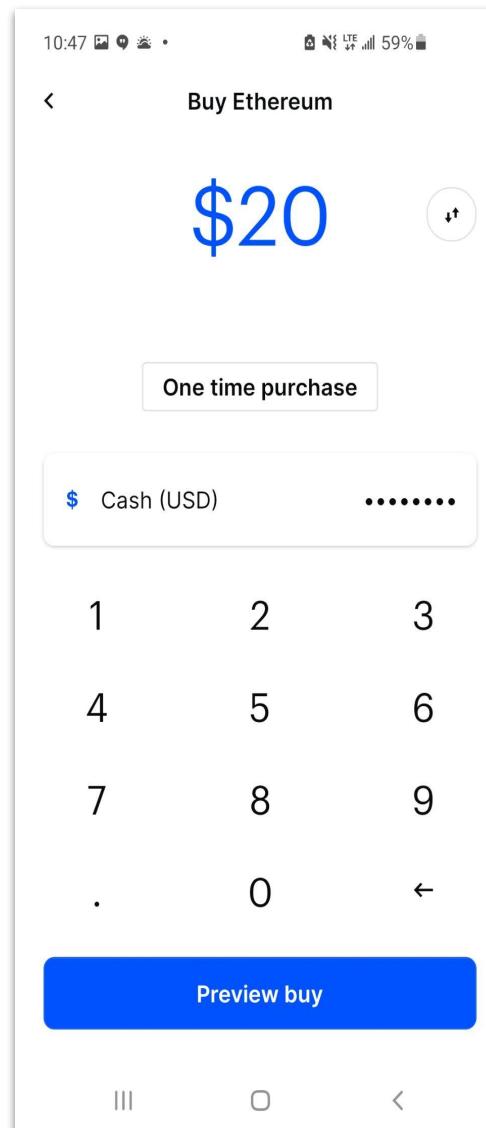
Select which coin to buy (choose from either Ethereum or Rootstock)



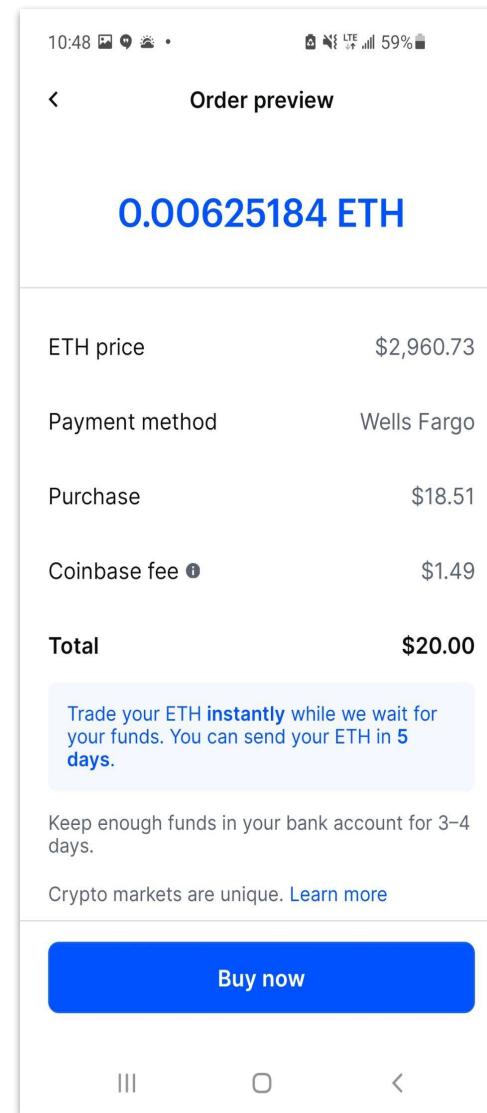
...then...

3. Send your newly added crypto to the LifeFiles wallet

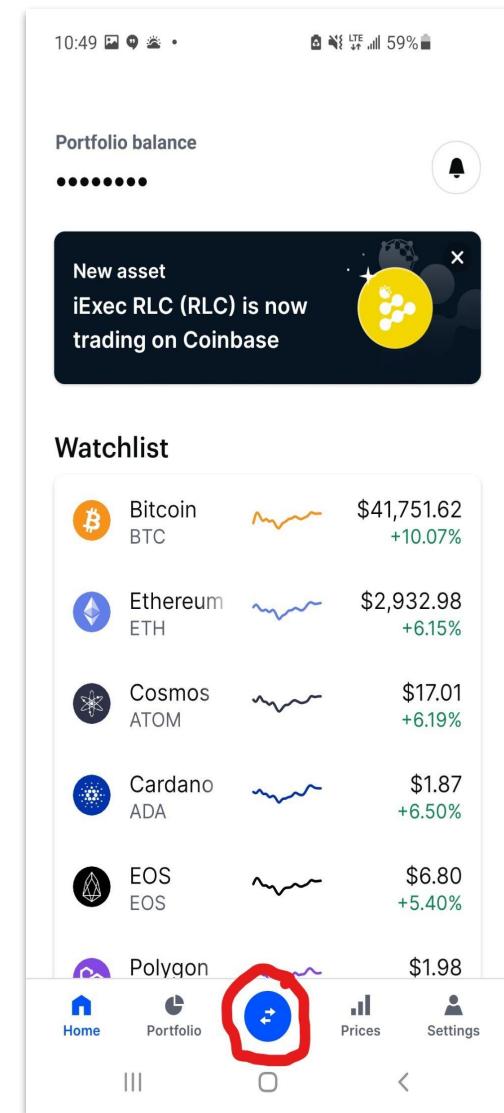
Determine the amount to be purchased and select or add your payment method



Purchase your desired amount of crypto



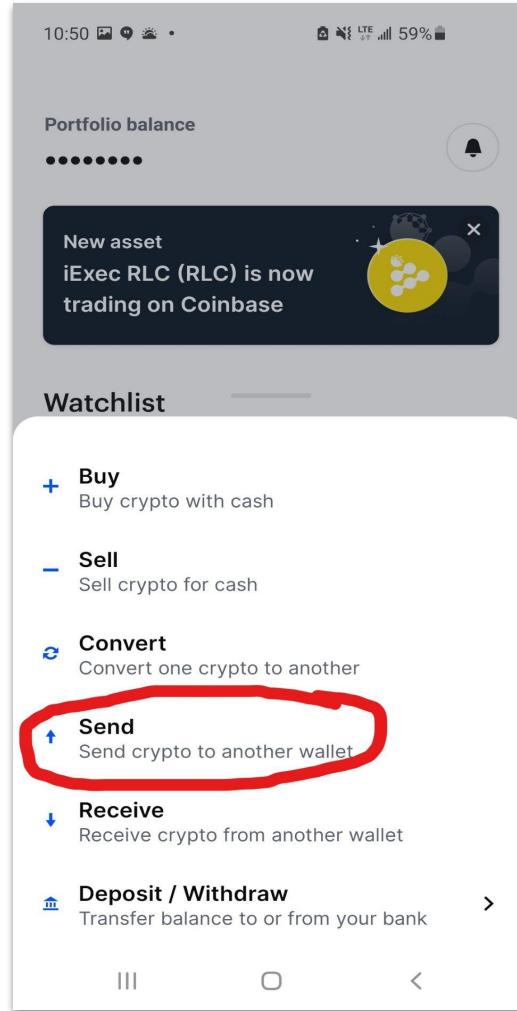
Go back to the home page and click on the 'Transact' button again



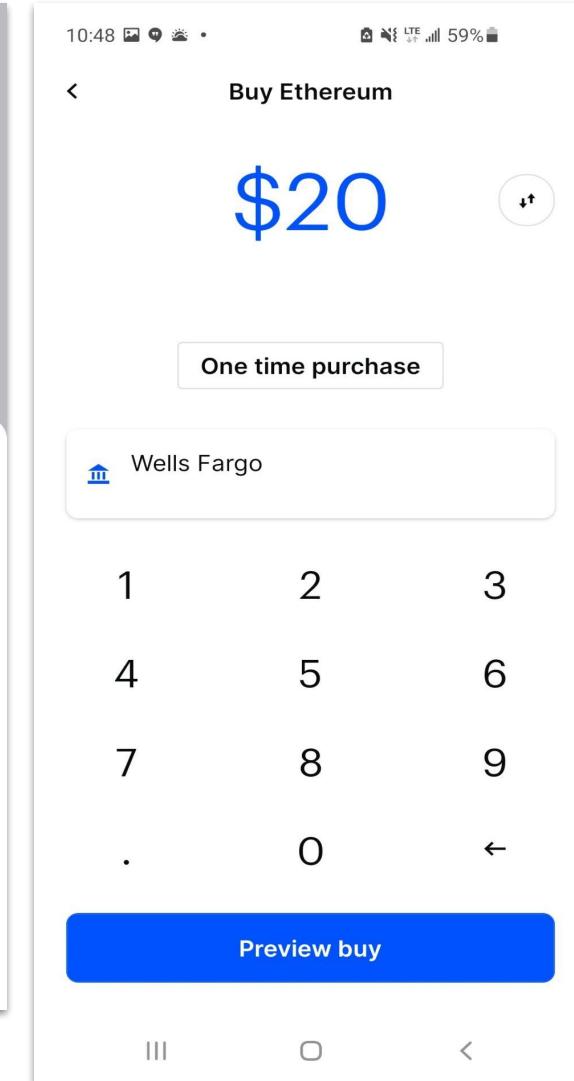
...finishing up

3. Send your newly added crypto to the LifeFiles wallet

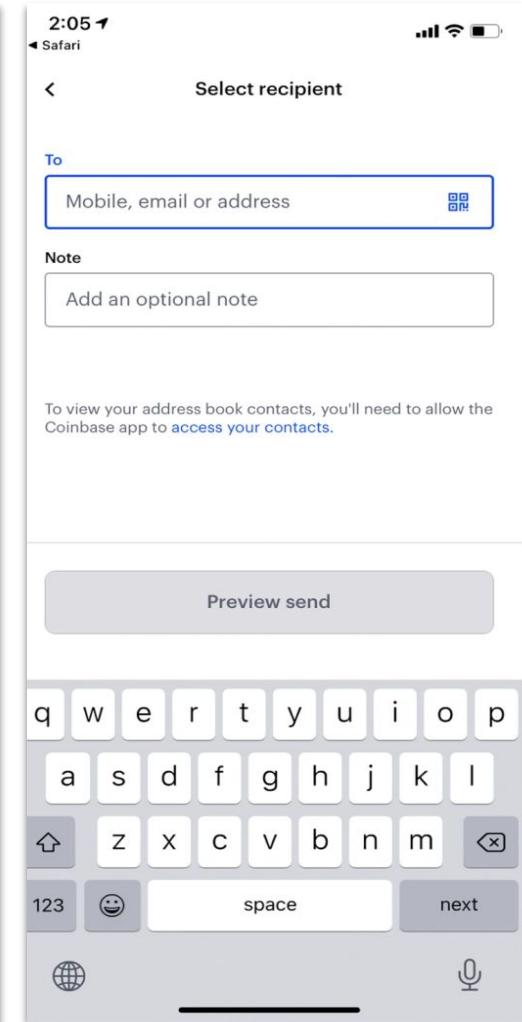
Now click on 'send' to send funds to the LifeFiles wallet



Select which coin to send and the total funds you wish to send to the LifeFiles wallet



Send your funds, you can enter the wallet address listed above or scan the QR code



6

Roadmap

MVP - Alpha - Beta - Launch

Learning Launch

A learning experiment conducted quickly and inexpensively to gather contextual data to determine the merit of committing further time, people and resources



Conditions for Learning Launch

1

Platform Administrator

2

On-boarding

3

Helpers

4

Document Owner

5

Notary

6

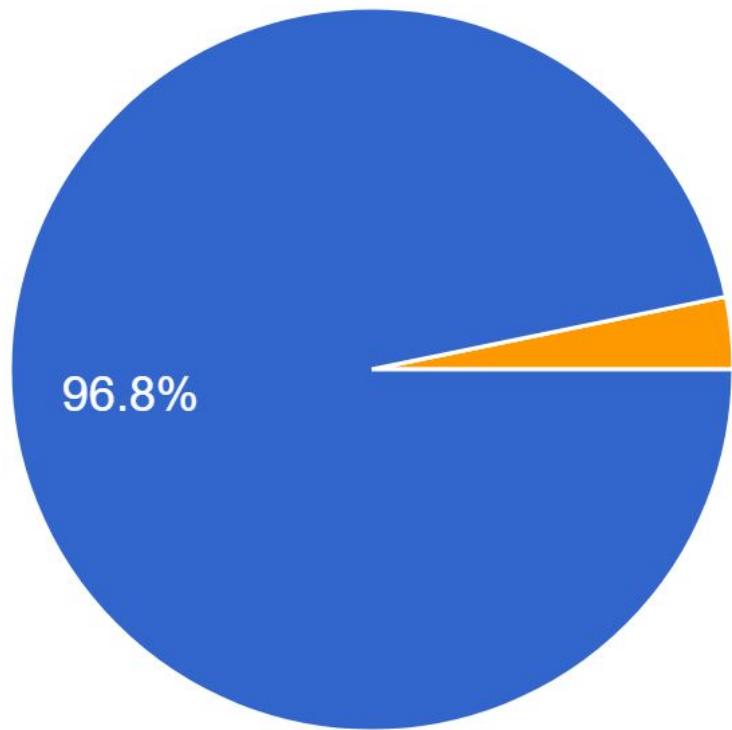
Document Receiver

- One platform administrator
- Main focus is for on-boarding document owners and a few document helpers
- Organizationally-affiliated helpers, same organization as the platform administrator.
- Limited to clients of the platform administrator
- Digital notary affiliated with the administering organization
- Either used for document replacement assistance, and/or
• Direct service offered from administering organization
• Work to get some recognition by other document receiving services

Learning Launch Results

		Critical Path	Essential learning	Result	
1	Platform Administrator	Can the new potential Admin navigate the Admin page well enough to be an Admin?	Whats the time/resources commitment for Admins, on-boarding and post on-boarding?	<ul style="list-style-type: none"> • • • 	✓
2	Organizationally-affiliated Helper	Is it easier or harder to use than their current software suite (Gdrive, Apricot)?	How does the process flow from Admin training helpers, to Helpers onboarding Owners?	<ul style="list-style-type: none"> • • • 	✓
3	Document Owner	Is it easy to remember how to use LF a week after having been onboarded by a helper?	How well do Doc owners understand the sharing mechanics?	<ul style="list-style-type: none"> • • • 	✓
4	Notary	Does the notary trust LifeFiles?	Can we onboard a registered notary (y/n)	<ul style="list-style-type: none"> • • • 	✓
5	Document Receiver	Can a doc owner transact with a document receiver using LifeFiles? (if no, why not?)	Which of the share methods would a type of receiver accept?	<ul style="list-style-type: none"> • • • 	✗

Do you think there is a benefit in having a digital and legally valid copy of your IDs and documents?



Survey sample of 50 People
experiencing homelessness

- Yes
- No
- Maybe

Sunrise Homeless Navigation Center

"We are the only full-service navigation center that stayed open during the pandemic. We see first hand the trap that lost/stolen/destroyed documents pose to people without homes as they expend tremendous time and energy trying to reacquire documents over and over again.

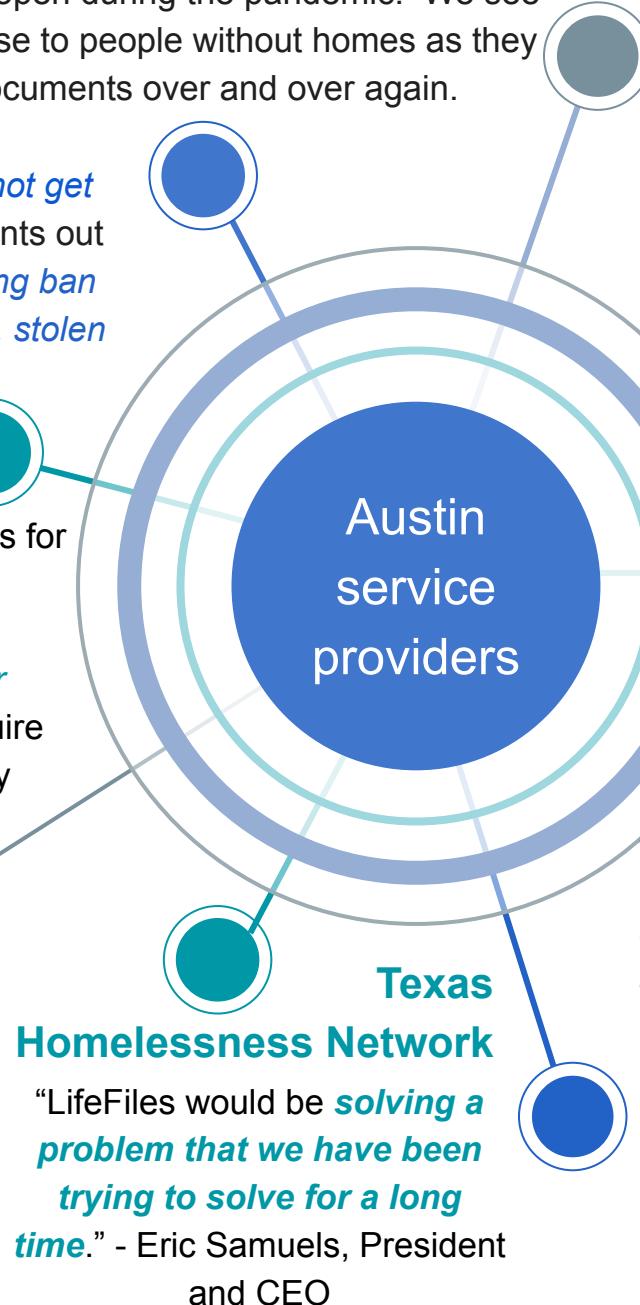
Without these documents they cannot get jobs, apply for housing, cash checks, open bank accounts etc. They cannot get on their feet. LifeFiles would allow us to help motivated clients out of this endless cycle, *particularly at a time when the camping ban and imminent sweeps will result in their property being lost, stolen or destroyed.*" - Sarah Weier, Assistant Director

Foundation Communities

"It would be immensely beneficial for clients that come to us for one service but also need others. *Some clients cancel appointments because they can't find their documentation. Having access through a shared resource amongst partner organizations would be immensely beneficial.* It would require less documentation being brought to an appointment if they have access to it." - Connor Tantu, Program Coordinator

Integral Care

"Historically the population I serve has missed out on many opportunities to change their life due to not having the right identity documents accessible. *LifeFiles will make it possible for individuals to not miss out on these opportunities* by having a safe and secure place to store these documents. - David Gomez, Program Manager for Homeless Services



Austin Public Health

"Document and identity management are immense hurdles for people experiencing unsheltered homelessness. It is easy to take for granted the ease with which most of us access the marketplace and essential services, because we are accustomed to holding the keys that unlock the doors to basic healthcare, food, housing, and employment. LifeFiles solves for numerous barriers to systems entry by *making identity management and document storage resilient, secure, and intuitive for the end user.*"

- Charles Loosen, Homeless Strategy Division

Downtown Austin Community Court

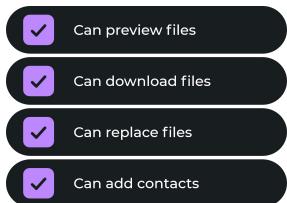
"Replacing an ID or driver license can be very difficult if the information on the ID is unknown, specifically the ID/DL number. In addition, the Social Security Administration only allows an individual to possess ten social security cards in a lifetime. If this amount is exceeded then a letter from a government agency, specifying the need for a replacement card, is needed. This means only certain providers can request this exception. *LifeFiles would save time and resources.*"

- Jennifer Sowinski, Clinical Operations Manager

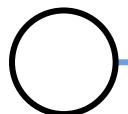
Austin-Travis County EMS

"This would allow me to continue to work on the client's navigational path rather than start over every time I come across a new (to me) client. It would also give the client one thing that can't be taken from them, some control amid the chaos." - Amber Price, Paramedic

Future Roadmap



Administer



Sub-admin feature
Volunteer helper w/ time limitation
Analytics that respect privacy

NIST certification and proof of personhood to the multimodal login

Onboard



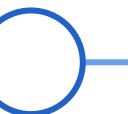
Error Handling when an account in the database that has that email
Email/phone validation
Look-up notary to prevent fraudulent notary sign-up
Biometric log-on

Helper / Notary



Ability to have the client share where the physical document is stored
Look-up notary to prevent fraudulent notary sign-up

Store



Micro instruction to wait for document upload process
Document history
Multi-page upload
Identify document as private, with share warning confirmation

Share



Enhanced "share" mechanism - API, OCR, send a secure link

Verify



Ability to adapt API to Secretary of State website

What is meant by “digital identity”?

87th Texas State Legislative Session [House Bill 2199](#) (did not pass), proposing the formation of a digital identity working group, defines “Digital identity” this way:

- A. credentials issued by federal, state, and local governmental agencies to a person for identification, licensure, registration, and other purposes;
- B. credentials conferred to a person to verify the person's skills and qualifications;
- C. digital credentials issued for user authentication and access management; and
- D. digitally-verifiable claims.

Life Files interacts with that concept of “digital identity” in this way

Stores scanned digital copies, with potential notarization, if needed

Does not do this, but could with further development

- A. credentials issued by federal, state, and local governmental agencies to a person for identification, licensure, registration, and other purposes;
- B. credentials conferred to a person to verify the person's skills and qualifications;
- C. digital credentials issued for user authentication and access management; and
- D. digitally-verifiable claims.

Stores scanned digital copies, with potential notarization, if needed

Includes these in the architecture of digital notarization to support the long-term use case of an authoritative source creating and signing the document that is then stored

3 technical needs to enable digital credentials and access management (part c in previous slide)

(36 person-months in total. ~ 300K)

1 The need to prove that a person signed into the app is authentic

Deliverables:

1. Add AAL levels and NIST certification and proof of personhood to the multimodal login
2. Contribute to the municipal / national standard for AAL and proof of personhood

Estimate: 12 person months work

2 The need to prove that a document required for the transaction is authentic

Deliverable:

1. Pull notarization out of LifeFiles to create stand alone notarization tools
2. Create email-to-DID tools to allow the general public to use SSI applications

Estimate: 6 person months

3 The need to support digital signatures

Deliverable:

1. Create a stand alone digital signing tool. Think of this as an open source docusign that can easily be added like a custom form to existing government CMSs.

(This is also a future need of LifeFiles for signing LOAs and contracts)

Estimate: 18 person months

Comparative Landscape

	LifeFiles	MyDigital Locker	ID.me	SigniX	Notarize
Function	digital document storage, notarization, and verification	digital document & data storage	digital credentials and access management	digital signatures and notarization	digital notarization
Core users	Homeless folks, Continuum of Care providers and their clients; other service providers outside of the continuum of care; mutual aid groups, foster care, low income individuals, full time RVers/nomads	Continuum of Care providers and their clients	Military, students, alumni, teachers, nurses, first responders, company employees, government employees, age groups	Titles, tax, real estate closings, wealth management, legal, healthcare, construction, insurance & annuities, government, education	Lenders, auto retailers, businesses, credit unions and banks, title agents, notaries, real estate closings
Document storage	available	available	not available	not available	available
eNotarization	available	not available		Available, NIST digital signature compliance	designed around digital notarization, complete with video conferencing
Accessible multi-modal log-in	available, accessible	available, not accessible	not available	?	?

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Resources & Links

Open Source Resources

MyPass Secure Document Storage:

<https://github.com/cityofaustin/mypass>

Decentralized Verification, and digital notarization templates

<https://github.com/cityofaustin/mypass-verification>

Multimodal login Oauth server

<https://github.com/cityofaustin/multimodal-login>

Mypass Blockchain Report

<https://github.com/cityofaustin/mypass/wiki/blockchain-report>

UX Components Library

<https://lifefilesds.webflow.io/>