GECO Proposal

Project Overview

Project name

PayTrie

Website: https://paytrie.com/ or https://demo.paytrie.com/

Gitlab: Closed-sourced (available upon request)

Team members

Kevin Zhang: https://www.linkedin.com/in/kevinzhang10/

Henry Chan: https://www.linkedin.com/in/henry-chan-85b6b227/

Project Description

PayTrie Gateway is a standalone, no-frills gateway, which can integrate directly with Gnosis Safe allowing users to pay the Safe creation fee and add Dai to their wallet using fiat. Dai was chosen as the onboarding cryptoasset because we want to minimize the price fluctuation risk for new users entering the ecosystem, thereby lowering the mental barrier to entry. As well, Dai was chosen because Gnosis Safe supports Dai and paying transaction fees in Dai.

In addition, PayTrie Gateway can serve as a KYC provider to provide private key recovery. PayTrie can fit into any recovery scheme using personal information as devised by Gnosis as PayTrie requires the user to provide personal identifiable information (“PII”) to sign up. PII is used for KYC purposes and we use third party sources for confirmation.

We want to extend the reach of Gnosis Prediction Markets and DutchX to average users by making Gnosis Safe more accessible.

Motivation

One of the barriers to dapp adoption is the inability for new users who do not already own crypto to easily fund their accounts to engage with dapps. More specifically, there is a lack of interface between the conventional banking system and blockchain ecosystem at the wallet and dapp level, leaving dapps unable to provide a seamless on-boarding experience for non-crypto users. The only option currently for a user to onboard is through a centralized exchange, which hampers the onboarding experience by forcing the user to visit an external site. We want to

increase dapp adoption by providing a seamless on-boarding experience for users coming from the conventional financial world.

This problem is evident in the account creation process for Gnosis Safe where the end user needs to have a small amount of crypto for gas to start the safe creation process. Users who do not already own ETH or any crypto would drop off in the sign up process. We would like to allow the end user to fund the gas fees and their wallets using their fiat funds.

In addition, dapps like prediction markets could fall under the purview of local regulators which in some instances require the dapp to conduct know-your-customer ("KYC") checks. Our secondary motivation is to assist dapps in satisfying regulatory requirements. We can do so by either being the KYC provider, or passing on the user's information to the dapp to conduct their own diligence.

Lastly, with the user's personal information and permission, PayTrie could play the role of becoming one of Gnosis' KYC providers to provide wallet backup services. To verify the users identity, we require either a soft credit check or two pieces of identification. To retrieve the user's backup key, we could ask for matching information that the user initially provided. Another potential method could be storing an encrypted key as part of the multisignature scheme encrypted by the user's PII such as the user's Social Insurance Number along with additional PII fields. In the medium term, we plan on integrating with banking credential aggregators which provides us with another mechanism to verify the users identity.

Overall goal

Our mission is to increase the number of dapp users by tenfold by making the onboarding experience of non-crypto users simple. Although new dapps are continually being introduced into the ecosystem and existing dapps continue to refine, daily active user growth for dapps have stagnated[1]. By creating a better interface between the crypto ecosystem and the conventional financial system, we hope to resolve one of the pain points that is preventing dapps from reaching the global general population.

Future outlook

Our vision is to seamlessly merge the crypto ecosystem and conventional banking system such that there are no barriers for users to onboard into dapps, similar to Web2. Our first product is a fiat crypto gateway. Our future suite of products will continue to enhance dapp utility, building upon the gateway as a foundation.

[1] Data available at https://www.stateofthedapps.com/stats [Accessed on 2019 May 14]

Why we should fund you

Funding from Gnosis Ecosystem Fund would help us accelerate our mission of increasing decentralized application adoption. We firmly believe our interface would enable more users from the general population to use dapps on a regular basis. Gnosis Safe paired with PayTrie Gateway provides end users a low barrier to experiment with dapps. In turn, having more users will help dapps find product market fit faster.

How long will it take

Building an integration with Gnosis Safe has two separate streams, technical and regulatory. Under our technical stream, to take the product to MVP will require an additional three months to complete. Tasks include creating an API and its associated documentation, developing dashboards, and security hardening. The private key backup feature will require a scoping exercise with Gnosis to confirm Gnosis' planned architecture to ensure recoverability and security of user's funds. The scoping exercise will inform the implementation duration.

Under the regulatory and operations track, the work is completed to launch within Canada. Additional geographies which PayTrie has intentions of expanding into will require a lead time between three to twelve months to modify the compliance policy to the local geography and apply for the required local licenses.

How much funding are you requesting

We are requesting $85,000.

$45,000 for Jul - Sep 2019: Create API to integrate with Gnosis Safe. Develop dashboards. Security hardening for funds storage. Perform security audit.

$35,000 for Sep - Nov 2019: Scope and build Gnosis Safe's key backup using KYC provider. Perform security audit.

$5,000 for Jul - Nov 2019: Legal fees for policy amendment to launch in Germany and Gibraltar. Small Payments Institution application in the European Union.

How did you hear about the GECO

Website

Your Proposal

Features

Architecture

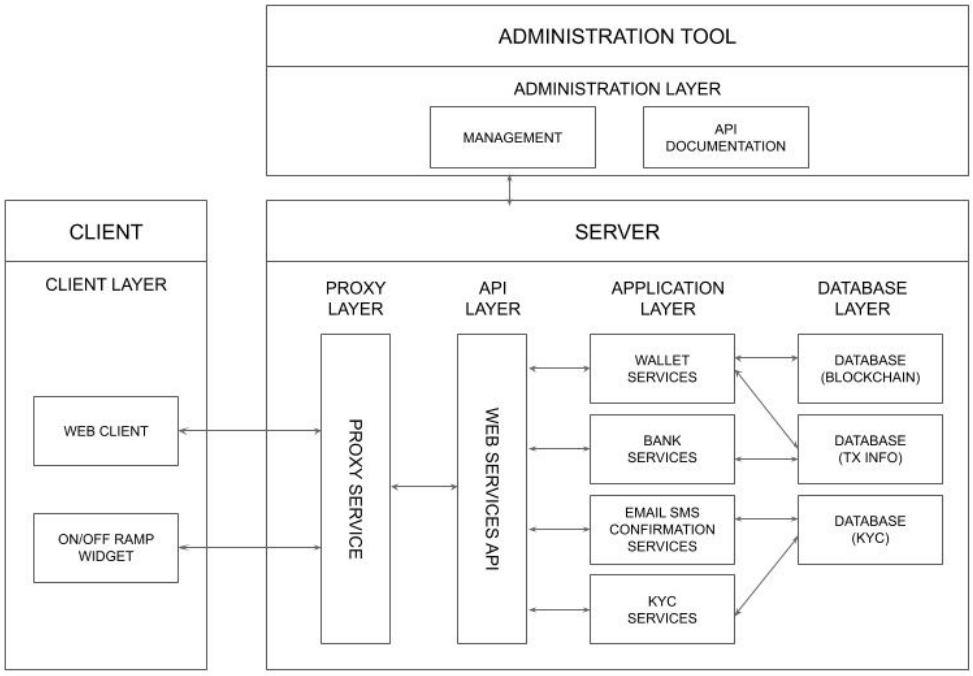


Figure 1: PayTrie architecture

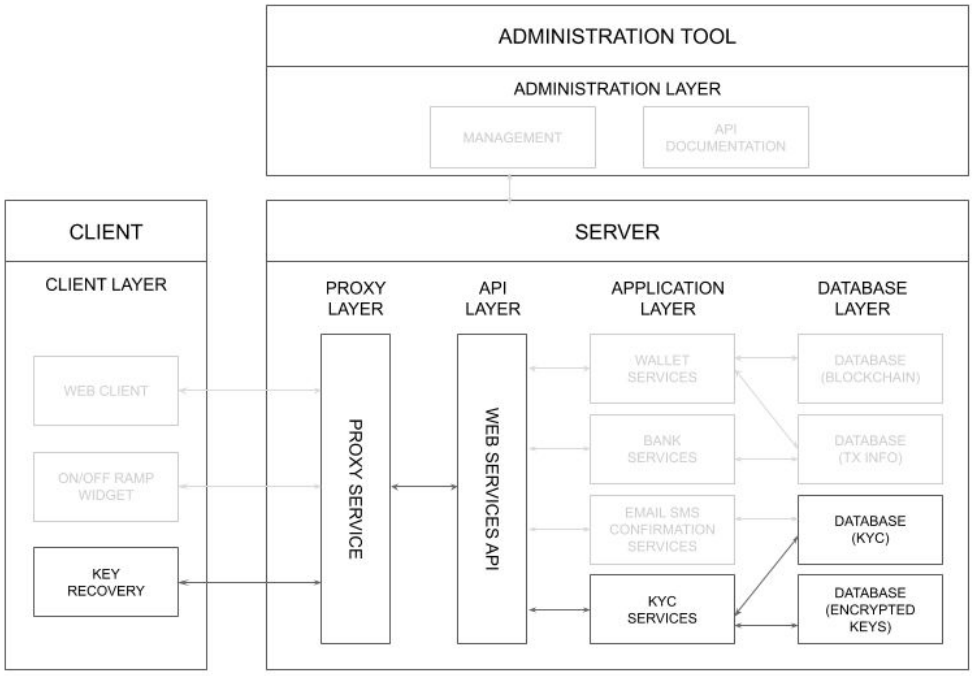
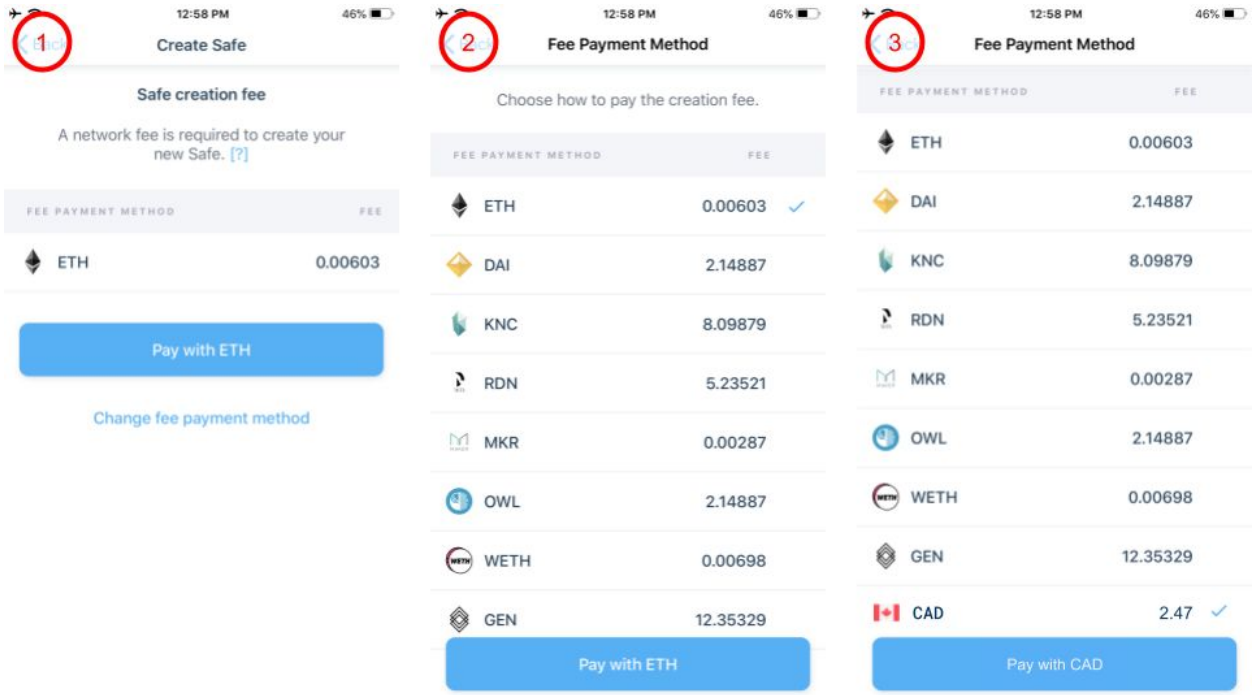
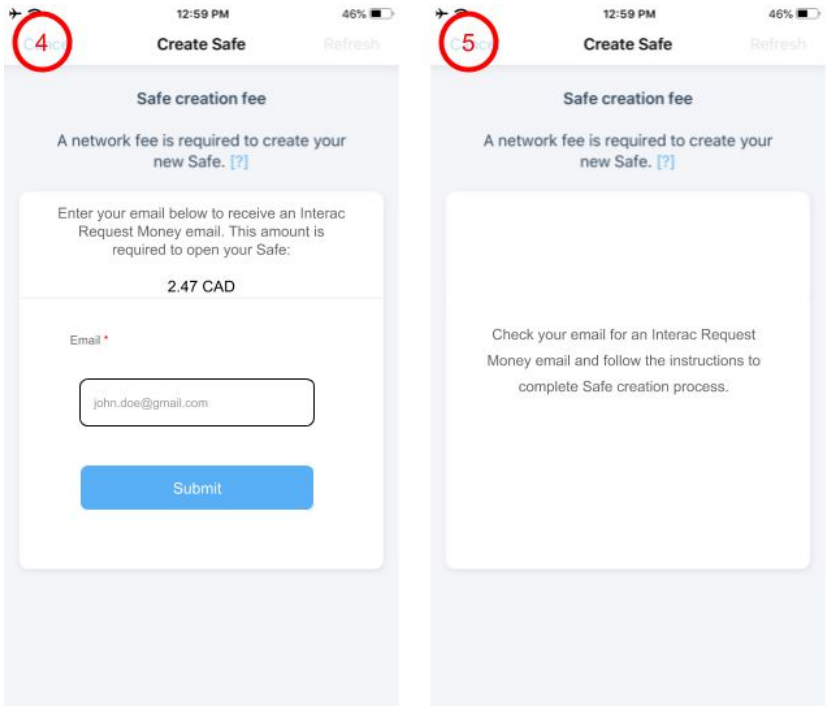


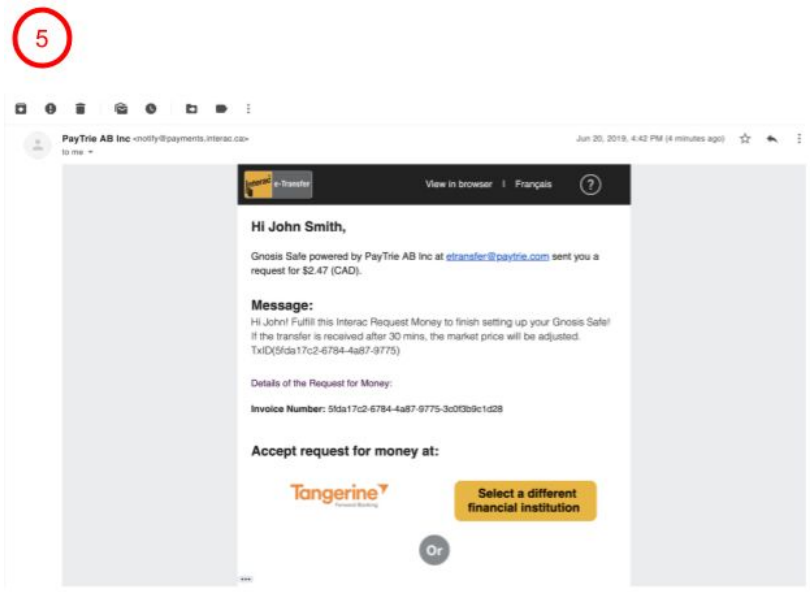
Figure 2: Proposed architecture to integrate key recovery service with Gnosis Safe using PayTrie

Mockups

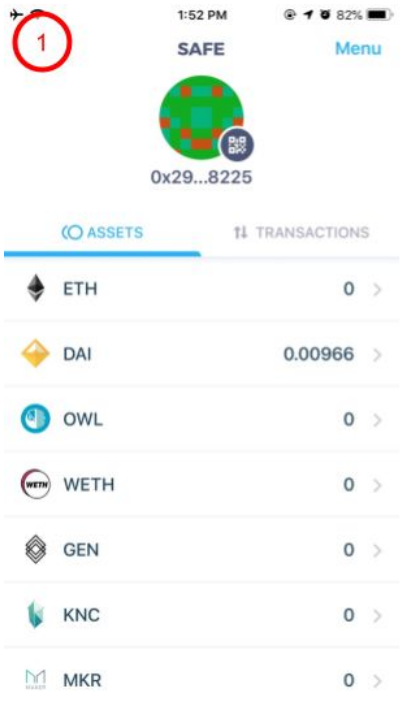
1. Gas Fee Payment Mockup

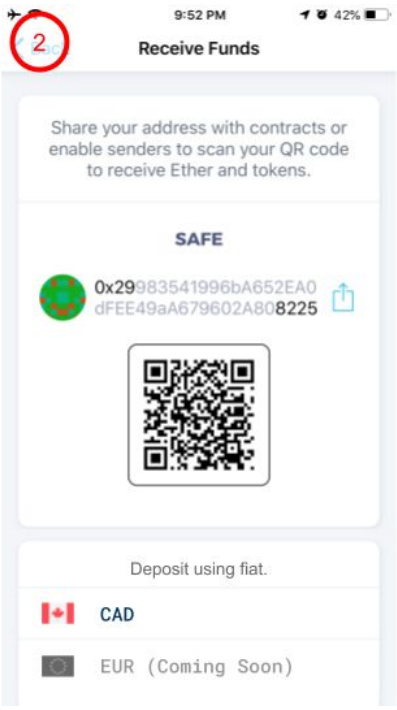


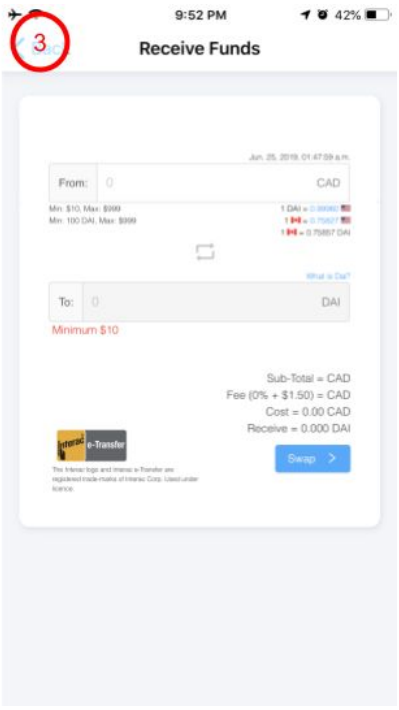


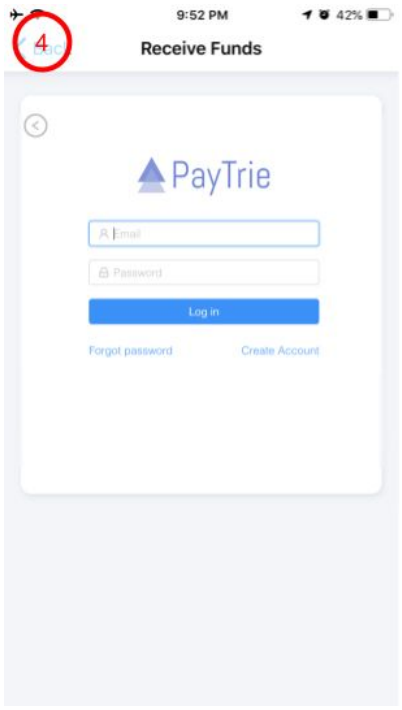


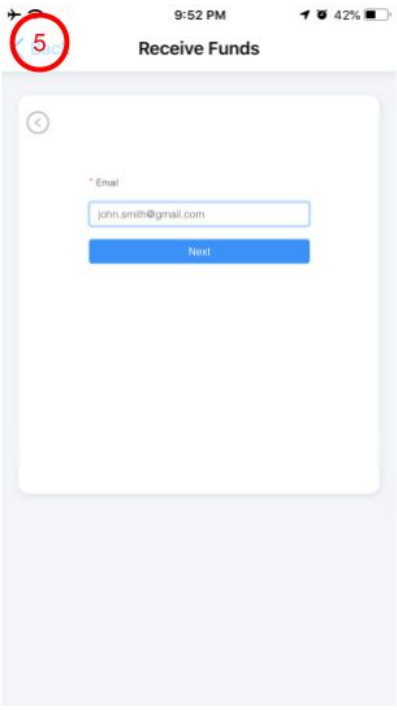
2. Account Funding Mockup

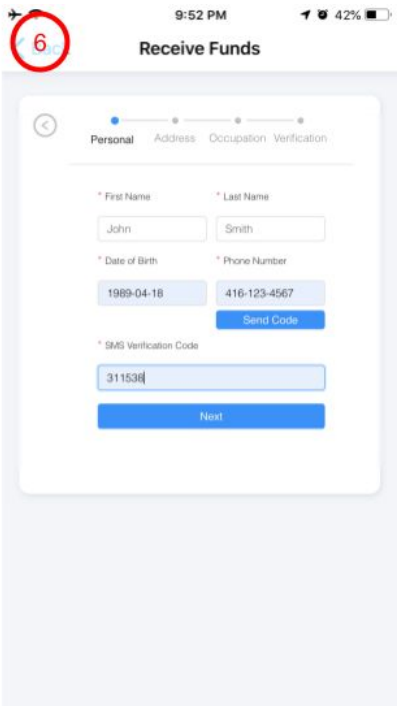

1
1:52 PM
82%
SAFE
Menu
0x29...8225
ASSETS
TRANSACTIONS
ETH 0
DAI 0.00966
OWL 0
WETH 0
GEN 0
KNC 0
MKR 0

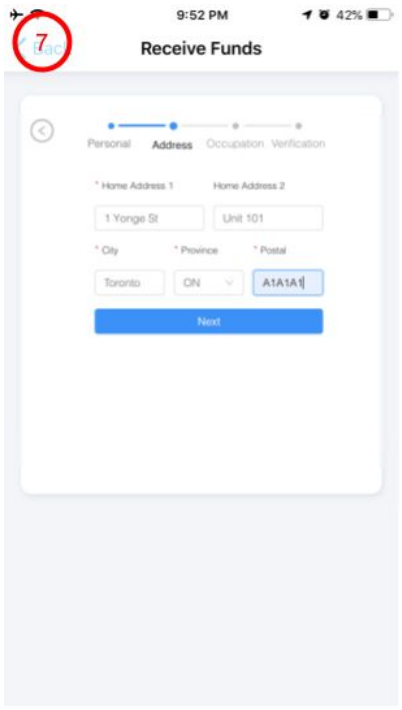

2
9:52 PM
42%
Receive Funds
Share your address with contracts or enable senders to scan your QR code to receive Ether and tokens.
SAFE
0x29983541996bA652EA0dFEE49aA679602A808225
Deposit using fiat.
CAD
EUR (Coming Soon)

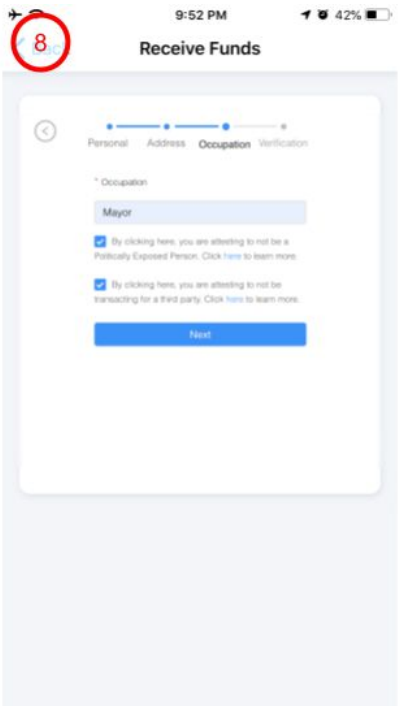

3
9:52 PM
42%
Receive Funds
From: 0 CAD
To: 0 DAI
Minimum $10
Sub-Total = CAD
Fee (0% + $1.50) = CAD
Cost = 0.00 CAD
Receive = 0.000 DAI
Swap

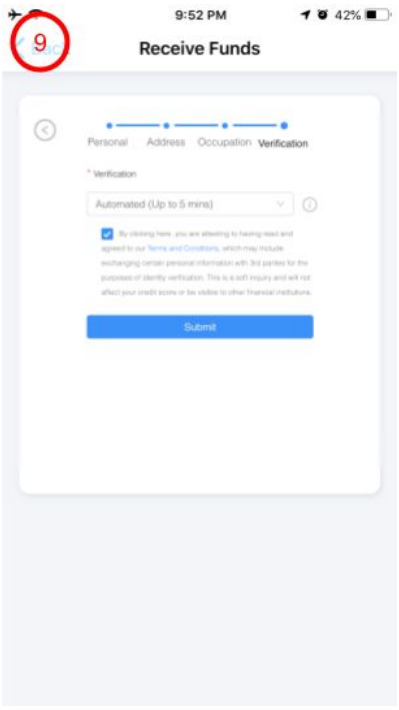

4
9:52 PM
42%
Receive Funds
PayTrie
Email
Password
Log in
Forgot password
Create Account

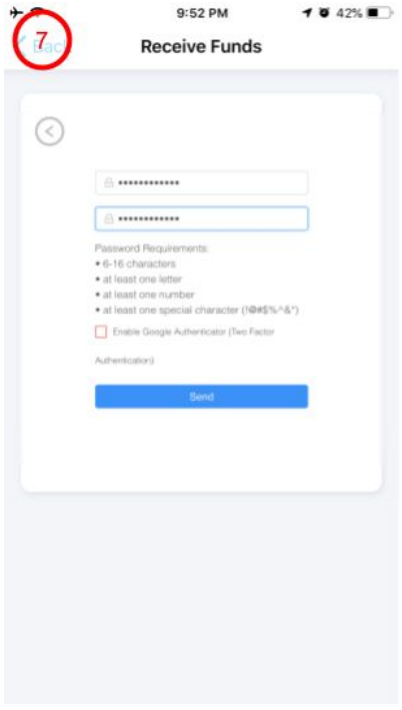

5
9:52 PM
42%
Receive Funds
Email
john.smith@gmail.com
Next

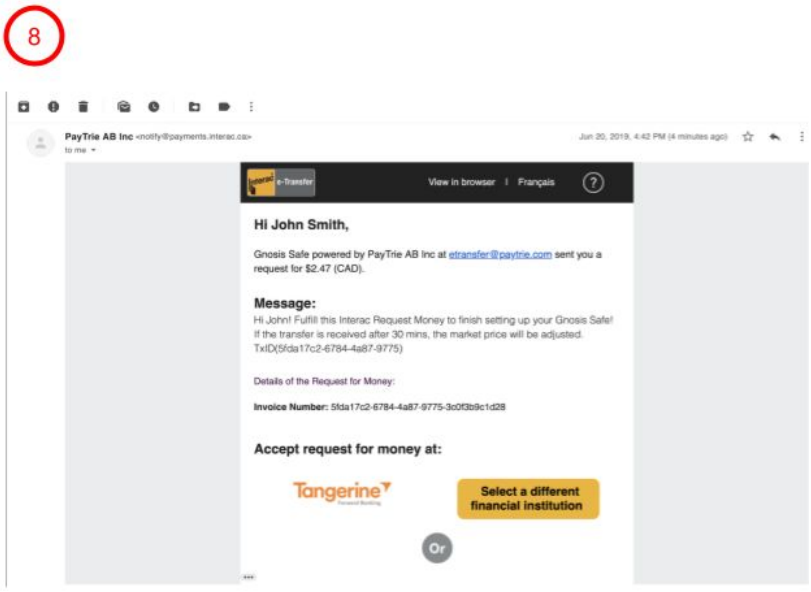

6
9:52 PM
42%
Receive Funds
Personal
Address
Occupation
Verification
First Name
Last Name
John
Smith
Date of Birth
Phone Number
1989-04-18
416-123-4567
Send Code
SMS Verification Code
311538
Next


7
9:52 PM
42%
Receive Funds
Personal
Address
Occupation
Verification
* Home Address 1
Home Address 2
1 Yonge St
Unit 101
* City
* Province
* Postal
Toronto
ON
A1A1A1
Next


8
9:52 PM
42%
Receive Funds
Personal
Address
Occupation
Verification
* Occupation
Mayor
Next


9
9:52 PM
42%
Receive Funds
Personal
Address
Occupation
Verification
* Verification
Automated (Up to 5 mins)
Submit


7
9:52 PM
42%
Receive Funds
Password Requirements:
• 6-16 characters
• at least one letter
• at least one number
• at least one special character (!@#$%^&*)
Enable Google Authenticator (Two Factor Authentication)
Send


8
PayTrie AB Inc
Jun 20, 2019, 4:42 PM (4 minutes ago)
View in browser
Français
Hi John Smith,
Gnosis Safe powered by PayTrie AB Inc at etransfer@paytrie.com sent you a request for $2.47 (CAD).
Message:
Hi John! Fulfill this Interac Request Money to finish setting up your Gnosis Safe! If the transfer is received after 30 mins, the market price will be adjusted.
TxID(5fda17c2-6784-4a87-9775)
Details of the Request for Money:
Invoice Number: 5fda17c2-6784-4a87-9775-3c0f3b9c1d28
Accept request for money at:
Tangerine
Select a different financial institution
Or

Team description

Kevin Zhang, CEO

Kevin Zhang is a seasoned blockchain developer, and is the technical lead for PayTrie. Most recently, he served as a senior blockchain architect at ConsenSys where he led blockchain scaling for the firm. During his time at ConsenSys, Kevin built a number of proof of concepts for enterprise clients. Previous to ConsenSys, Kevin was the first technical staff on TD Bank's blockchain team. Kevin graduated with an engineering degree from the University of Waterloo.

Henry Chan, COO

Henry Chan serves as the operations and compliance lead for PayTrie. Henry most recently served as the Regional Director for ConsenSys Toronto. While at ConsenSys, Henry helped build out the WeiFund platform which launched the world's first security token offering. Prior to ConsenSys, Henry co-founded Deloitte's blockchain practice in Canada. Henry graduated with an engineering degree from the University of Waterloo.