

## Brainstorm

Idea - Pay participants in crypto currency for participating in clinical trials

Idea – Use blockchain for electronic health records

Idea - Create a mobile app that rewards ethereum to users completing health related surveys

## Objectives

- In versus out of network
- Anonymity for health records
- Healthcare providers input info for patient validation
- Healthcare record for individual using ethereum blockchain

## Requirements

### Input

Verification to receive a prescription (Patient):

- Name eg Bob Smith
- Address eg 4800 Calhoun Houston, Texas 77004
- Phone Number eg (436) 555-1957
- Email eg bob123@gmail.com
- Insurance Provider Blue Cross Blue Shield
- Ethereum Address eg 0x43ac6d09283e6b126ba21c2a1f801853bfc06f15

### Transaction ID Array

```
[“0x9041f8b49bbb126a470b7ba2d057308c36425d0b2d45cfbd4eded0dc55736ee0”,  
“0xf37f0fe64f13e5fb5dbc77fc16bfe4a694d329ae4a03d12889d5824c4cd0b2f6”,  
“0x351667784dc0a0249777ae4d374c083d5598125ebacfaed0ef1bb49f6c1b6f5”,  
“0x2b96810b7e74959822dedc537b2eff84d9a2b919b5549b1ad7f325765641d2db”,  
“0xb2b93e7e313cd420deab16f87d62edd8c3e43765561968b63404d65361ee6ad7”]
```

### Output

The prescription must also include:

- Drug name eg synthroid
- Strength eg 25 mcg
- Quantity prescribed eg Twice a day
- Directions for use eg ingest orally
- Number of refills authorized (if any) eg One Refill
- Price eg \$95
- Ethereum Address eg 0x7a592b9242458ef7ed757a9c255fe43ce5be9977

Citation

[Pharmacist's Manual](#)

Ian's Speech

TITLE

Hello everyone, my name is Ian Prado <and my name is Jordan Elizaga> and we want to you Elephant, an application designed to leverage the ethereum blockchain

OBJECTIVES

So, why are pharmaceutical regulations in need of introducing blockchain technology? Compared to other healthcare industries, the pharmaceutical industry is highly regulated.

It is common for technological solutions to developed exogenously from governmental regulation, however we want innovation to be woven into its regulatory structures.

When we examine the industry, we can see that registered practitioners are required to keep records of controlled substances dispensed to patients. By leveraging uniquely identifiable ethereum addresses, pharmacists could have a trusted, verified method to access pharmaceutical transactions.

MARKET READINESS

This Ethereum Application is useful for two main reasons:

- Our product ensures and prioritizes the health and safety of our clients.
- Our blockchain technology secures their personal information and privacy..

Consider a male patient receiving a prescription from pharmacy X. The patient travels cross-country and, unfortunately, seeks immediate medical attention. He arrives in an out-of-network facility and forgets to bring his drug history. The facility is concerned about prescribing him medicine that conflicts with his current drug history. They identify the patient's Ethereum address with a multi-signature key and link his records inside the Ethereum blockchain. They read his history and prescribe him the right medication, successfully avoiding a fatality.

## FLOW DIAGRAM

So a system response diagram of our application would provide the user with a web and mobile interface to bundle pharmaceutical records. This would include the patients uploading their insurance provider while the pharmacist would upload the prescription details and price. Once the patient is ready to make their purchase, our application executes a smart contract in ethereum to transfer pharmaceutical records between each participant. We can show you a demo of how such a transaction would occur.

List of possible questions the Audience may ask.

So is the Elephant application a decentralized application?

No, Elephant however leverages Ethereum by transferring pharmaceutical records through smart contracts

How are the smart contracts written?

The smart contracts are written in solidity and the information is embedded within each ethereum transaction

How does Elephant take into consideration different insurance providers?

Elephant transfers the information needed for a prescription to the pharmacist, who then has complete control of how the particular insurance provider affects the price of the prescription