

# Nanotransaction Startup

Group 16 - Michael Hathaway, Kyle Esquerra, David Shoemaker, and Eric Lester

# Project Overview

- Project is being run as a startup.
- We are creating a 3rd party paywall for content providers that allows their users to access content in a pay-per-view style.
- Blockchain technology will be used to store transactions and maintain user anonymity.

# Project Deliverables

Our goal is to deliver:

1. Product website for potential clients, users, and investors.
2. User Web Client
3. Site Integration Component
4. Nanotransaction API/Decentralized Application

# Primary Technical Hurdles

- Understanding Blockchain technology.
  - What is it? How does it work?
  - What implementation options are available?
  - What implementation best meets the needs of our project.
- Understanding how to implement Smart Contracts and decentralized applications(dapps).



# Tool Set

- Nanotransaction API/Backend
  - Blockchain creation from scratch
  - Build upon existing blockchain platforms
  - Centralized database
- Site Integration Component
  - Module on Business Page
  - Browser Extension
  - Transactional Web Page

# Blockchain Implementation Routes

- Blockchain Creation from Ground Up
  - Data structure elements to capture transactional data
  - Data integrity checks, chained elements to have immutable property
  - Validation of transactions to create new elements in chain
  - Consensus algorithms to ensure blockchain state truth
  - Endpoint to interact with blockchain
  - Blockchain distribution for decentralized property
- Build Upon Existing Platform (dApp)
  - Consensus algorithms to ensure blockchain state truth
  - Creation of smart contracts (Business logic to store transaction data)
  - Endpoint to interact with dApp

# Product Site Demo

<https://zephyr-dev.herokuapp.com/>

Zephyr

Meet the Team

Contact Us

## Web Payment For The Information Age

### Content Creators

Increase revenue, decrease bounce rate!

[Learn More](#)

### Internet User

Bypass annoying paywalls and ads!

[Learn More](#)

### Investors

Be a part of the nanopayment revolution!

[Learn More](#)

Web Payment for the Internet Era  
temp@zephyr.com



# Perceived Challenges

Creating a blockchain from scratch

- Building from scratch would take a lot of time, which may limit us.
- Increase our amount of research by a factor of a lot.
- We must accept the fact we may not get as far as we want.

# Perceived Challenges Continued

Using already established blockchain

- Create a dApp for reliability and time saving.
- Still continue researching, but not as much.
- Must learn outside programming language, like solidity.

# Perceived Challenges - Front End

## Browser Extension

- Much cleaner and potentially more appealing to users.
- May have a 'mental' cost associated with it.

## Website Redirection

- Not as nice looking