BLOCKSTACK

A New Decentralized Internet

Blockchain and Applications

Introduction

I’m Dan Trevino. Community Advocate for Blockstack and Decentralized App (DApp) Developer.

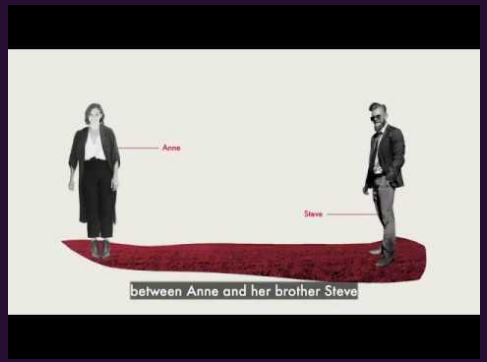
- NoteRiot
- NewsRiot (closed alpha)
- Circles (in development)

Introduction

During this talk, I'll cover:

1. What is Blockchain?
2. Benefits and Applications for Users
3. How Developers can easily build apps on Blockstack

What is blockchain?



https://www.youtube.com/watch?v=3xGLc-zz9cA

Decentralize?

Do we really need a New Decentralized Internet? We'll quote Tim Berners-Lee (citation):

> I've always believed the web is for everyone. That's why I and others fight fiercely to protect it. The changes we've managed to bring have created a better and more connected world. But for all the good we've achieved, the web has evolved into an engine of inequity and division; swayed by powerful forces who use it for their own agendas.
>
> Today, I believe we've reached a critical tipping point, and that powerful change for the better is possible – and necessary.

How does it work?

- Decentralized domain name system
- Decentralized storage
- Decentralized identity
- Applied cryptography
- Browser with blockchain support

Blockstack is building the assets needed for a new internet.

Build apps fast, without managing infrastructure

Blockstack Identity (auth layer)

- “Login with Blockstack”
- User accounts are committed to a blockchain with meta information
  - Pointer to storage bucket, social verifications, etc.
- Acts as a SSO solution for Blockstack apps

Gaia (storage layer)

- Users decide where to store their data
- Blockstack provides a common interface for all data providers
- Applications write to a designated path in the user's bucket

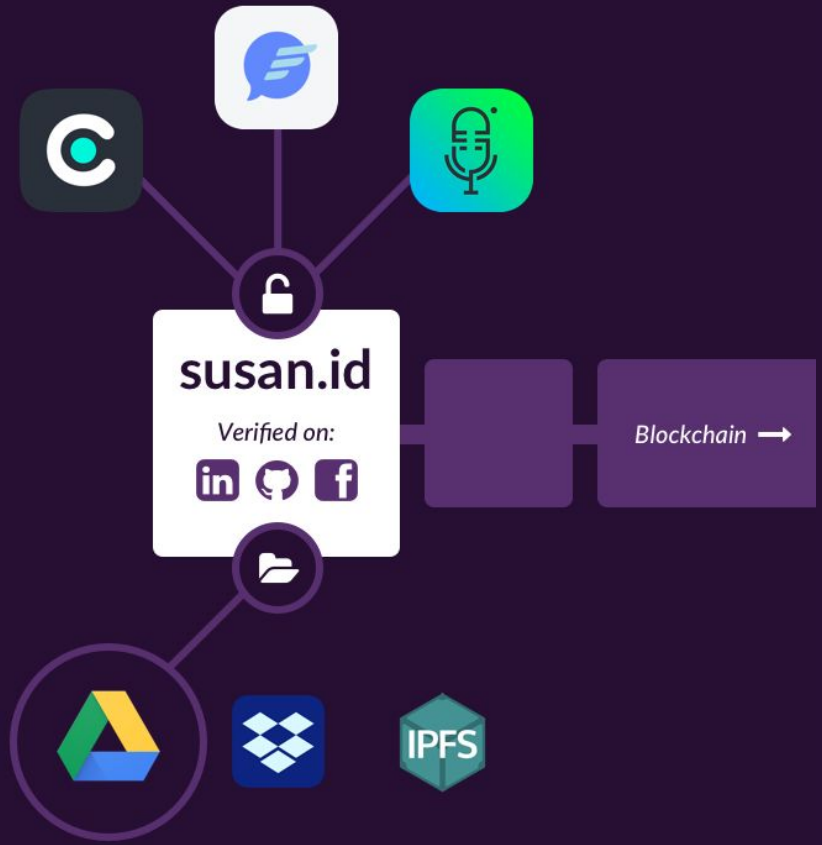
How does this compare to Ethereum dapps?

Ethereum Apps:

1. User must download MetaMask
2. User needs to buy ETH
3. You need to deploy an immutable smart contract
4. Every action requires the user to pay money
5. You need to use a seperate storage system

Blockstack Apps:

1. User downloads the Blockstack app
2. No need to buy cryptocurrency
3. You write your code with normal web technologies
4. All storage actions are free
5. Storage is built-in, and users can choose where their data is stored (Gaia Hub, Dropbox, Google Drive, IPFS, etc)


susan.id
Verified on:
Blockchain
IPFS

Notable projects built on Blockstack

- NoteRiot - simple note taking application, eventually, Evernote
- Graphite - replacement for G-Suite
- Stealthy.im - messaging app
- Coins - cryptocurrency portfolio tracking

Using blockstack.js - Authentication

```
blockstack.redirectToSignIn() // Initial Sign in

if (blockstack.isUserSignedIn()) {
     const userData = blockstack.loadUserData()
      // handle handle userData
} else if (blockstack.isSignInPending()) {
     blockstack.handlePendingSignIn().then((userData) => {
           // handle userData
     })
}

blockstack.signUserOut()
```

Using blockstack.js - Storage

```
blockstack.putFile(‘myfile.json’, myJsonString, { encrypt: true });

blockstack.getFile(‘myfile.json’, { decrypt: true })

// Public data:

const origin = window.location.origin

blockstack.redirectToSignIn(origin, origin + '/manifest.json', ['store_write',
'publish_data'])

blockstack.putFile(‘myfile.json’, myJsonString, { encrypt: false });

blockstack.getFile(‘myfile.json’, { decrypt: false, username: ‘dantrevino.id’})
```

Using Blockstack - App generators

https://github.com/blockstack/blockstack-app-generator

```
npm install -g yo generator-blockstack

mkdir hello-blockstack && cd hello-blockstack

yo blockstack:react

npm run start
```

Future considerations for developer tooling

- ORM style data management library
- Data sharing protocol libraries (between users & between apps)
- Data backup services
- More Gaia drivers

Help out, we're always looking for code contributions
and new community packages!

Blockstack Contributor Platform

Get paid in BTC to contribute to Blockstack

https://contribute.blockstack.org

Thanks!

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