



Emerging technology for connectivity

Accelerating digital transformation
in LDCs, LLDCs and SIDS

Breaking Brainchains

The Rise of the SLOW Network
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The Spotlight Keynote



Thinking Bigger Thoughts

Dreaming Bigger Dreams



New IP / QUIC Protocols

Internet The Great Disruptor

Internet being Disrupted?



‘Brainchain’ \brān chān\ noun

A series of assumptions that invisibly limits, confines or restricts the *freedom* of your thinking

Breaking Brainchains



[‘Tension’ Domiriel CC-BY-NC 2012](#)

LDCs

LLDCs

SIDs

?

Poll: What's in a Name

- 1) LDCs
- 2) LLDCs
- 3) SIDs
- 4) None of the Above

‘Small’ ‘Least’

‘Island’ ‘Landlocked’

~~'Small' 'Least'~~

~~'Island' 'Landlocked'~~

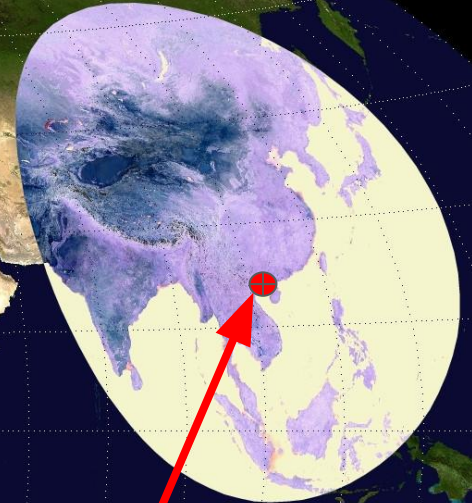


COVID-19

Divide and Conquer

“Nations Vs Networks”

Source: <http://i.imgur.com/MWnlkbo.jpg>



There are more people living inside this circle today than outside of it



Work From Home

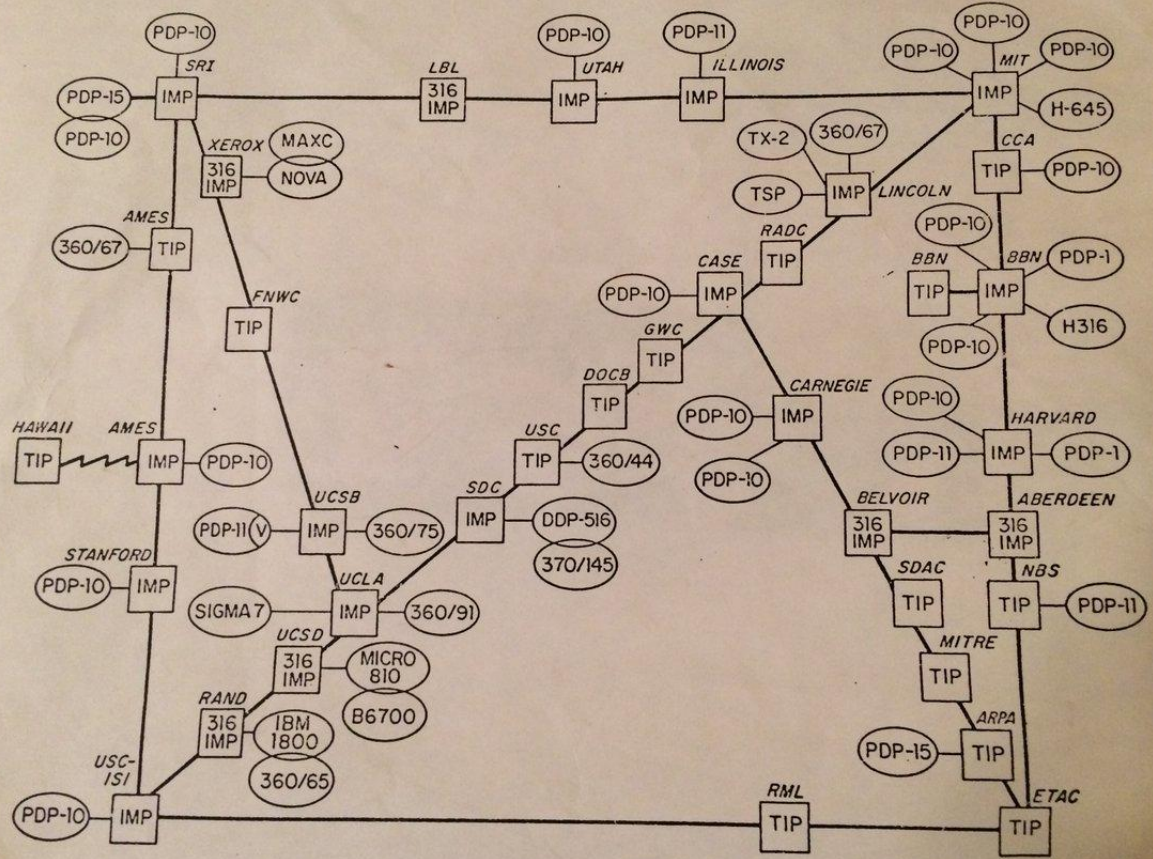
Connect and Liberate



Rise of the Stupid Network

Example I

ARPA NETWORK, LOGICAL MAP, MAY 1973



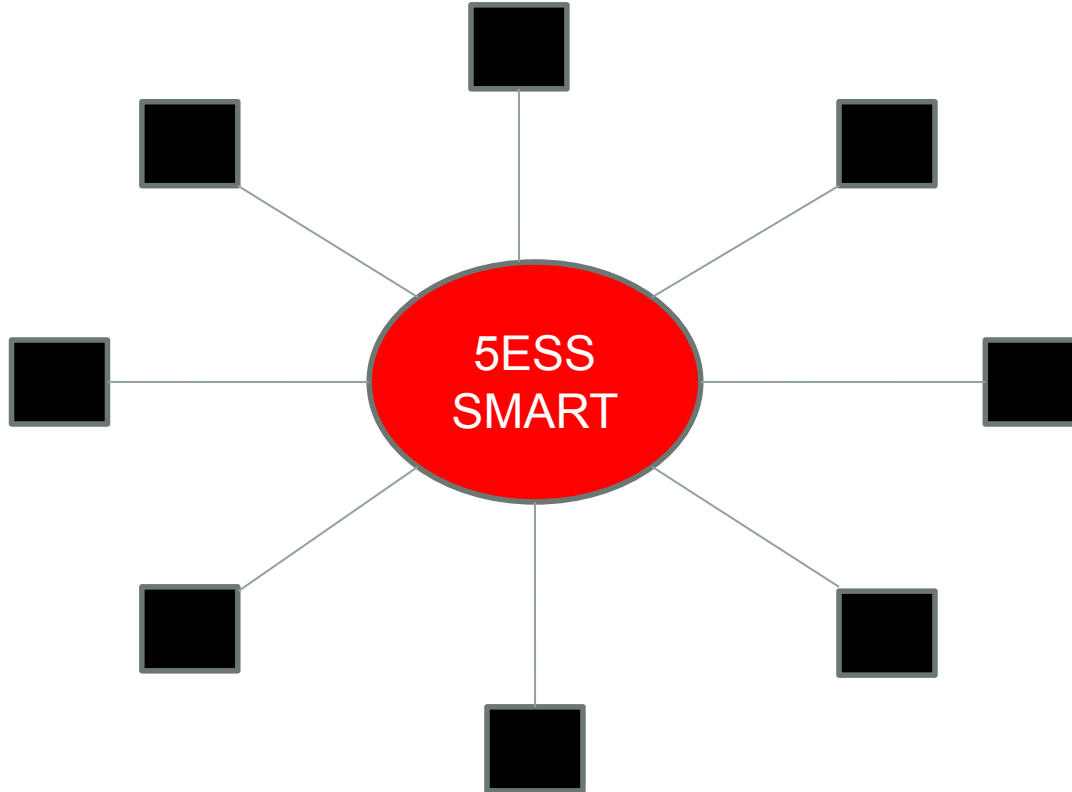
Humble Beginnings



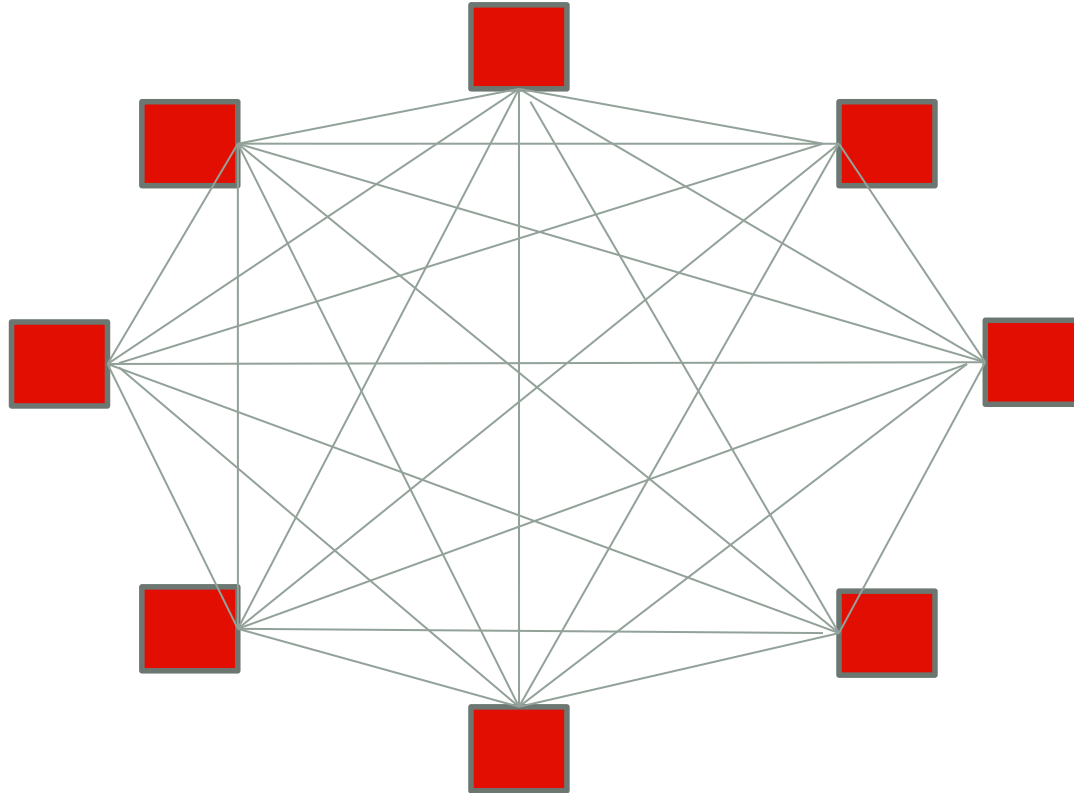
David Isenberg

<https://isen.com/stupid.html>

The Smart Network



The Dumb Network





Internet - Permissionless Innovation

Disruptive Innovation



The Internet: Global Not International?



The Internet: Global Not Inter-**national**?



Change in Worldview-?

Westphalia (1648) - Space

Routeview - Time

But ...

You can't divorce your Neighbour

Everyone's your Neighbour



But ... Paul Vixie ;)

Everywhere

Potentially a Bad Neighbour



Geoff Huston's IPJ OpEd

<https://ipj.dreamhosters.com/wp-content/uploads/2021/03/241-ipj-1.pdf>



The Internet is Rotting

<https://www.theatlantic.com/technology/archive/2021/06/the-internet-is-a-collective-hallucination/619320/>



Social is Sticky

Surveillance Networking

Rough Justice and Running Code?



Law and Order

Laws have Borders



Rise of the SLOW Network

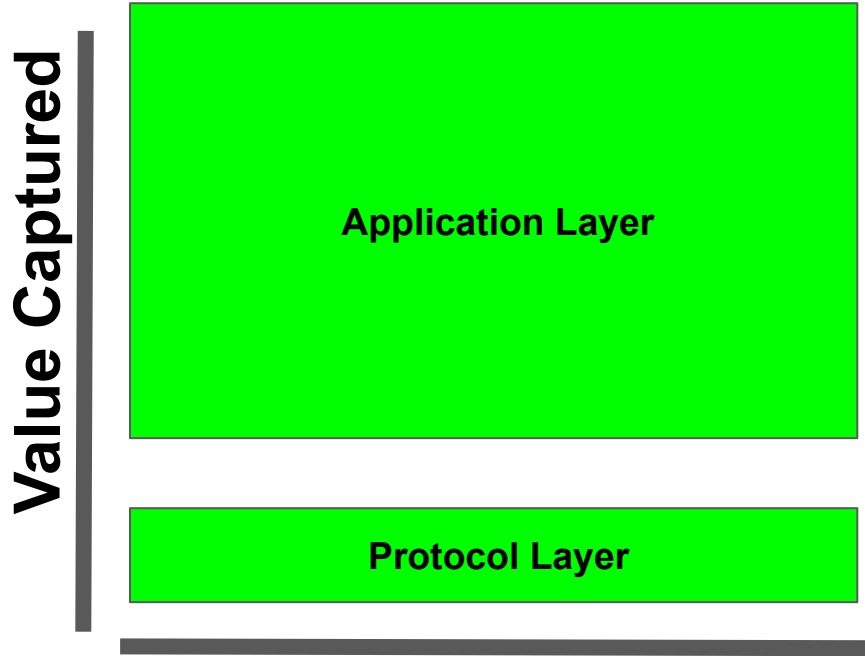
Example II



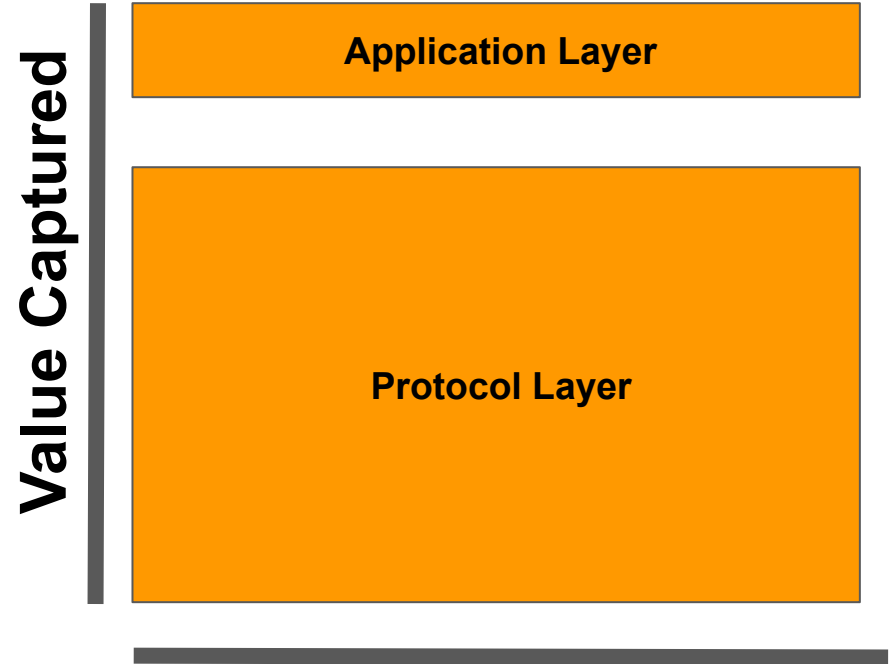
Bitcoin - Permissionless Monetization

Disruptive Innovation

The Internet



Blockchain - Incentive Engines



Source: Union Square Ventures 'Fat Protocols':

<http://www.usv.com/blog/fat-protocols>



Payment = Receipt

Transfer Not Copy

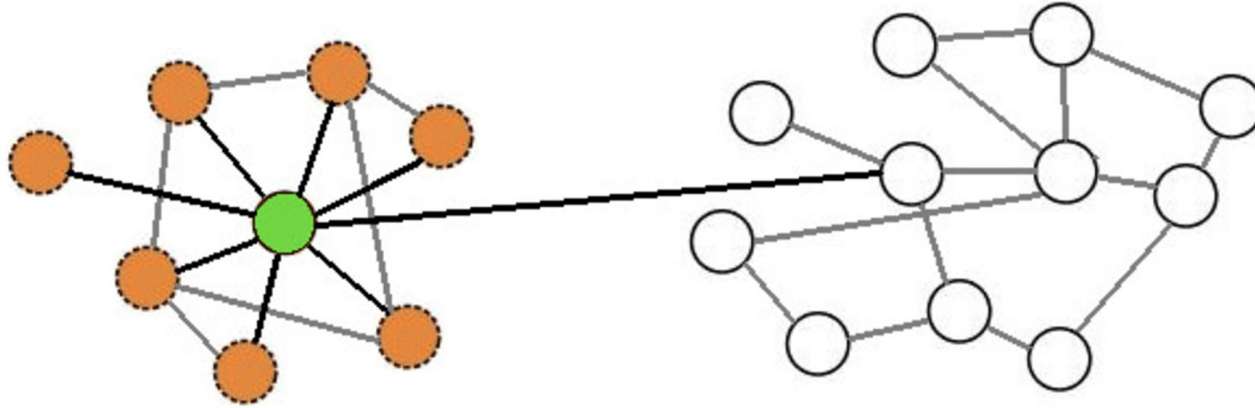
Don't Trust Verify

broadcast

$f(\text{cryptographic key})$



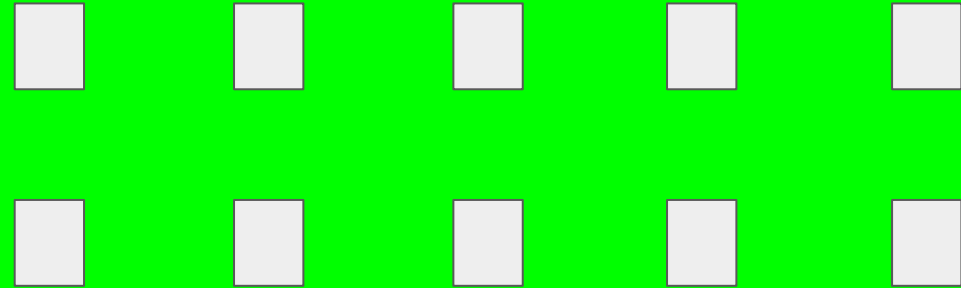
● Your node ● Sybil node ○ Honest node



Jameson Lopp (@lopp) | Published on November 13, 2016
<http://www.coindesk.com/bitcoins-security-model-deep-dive/>

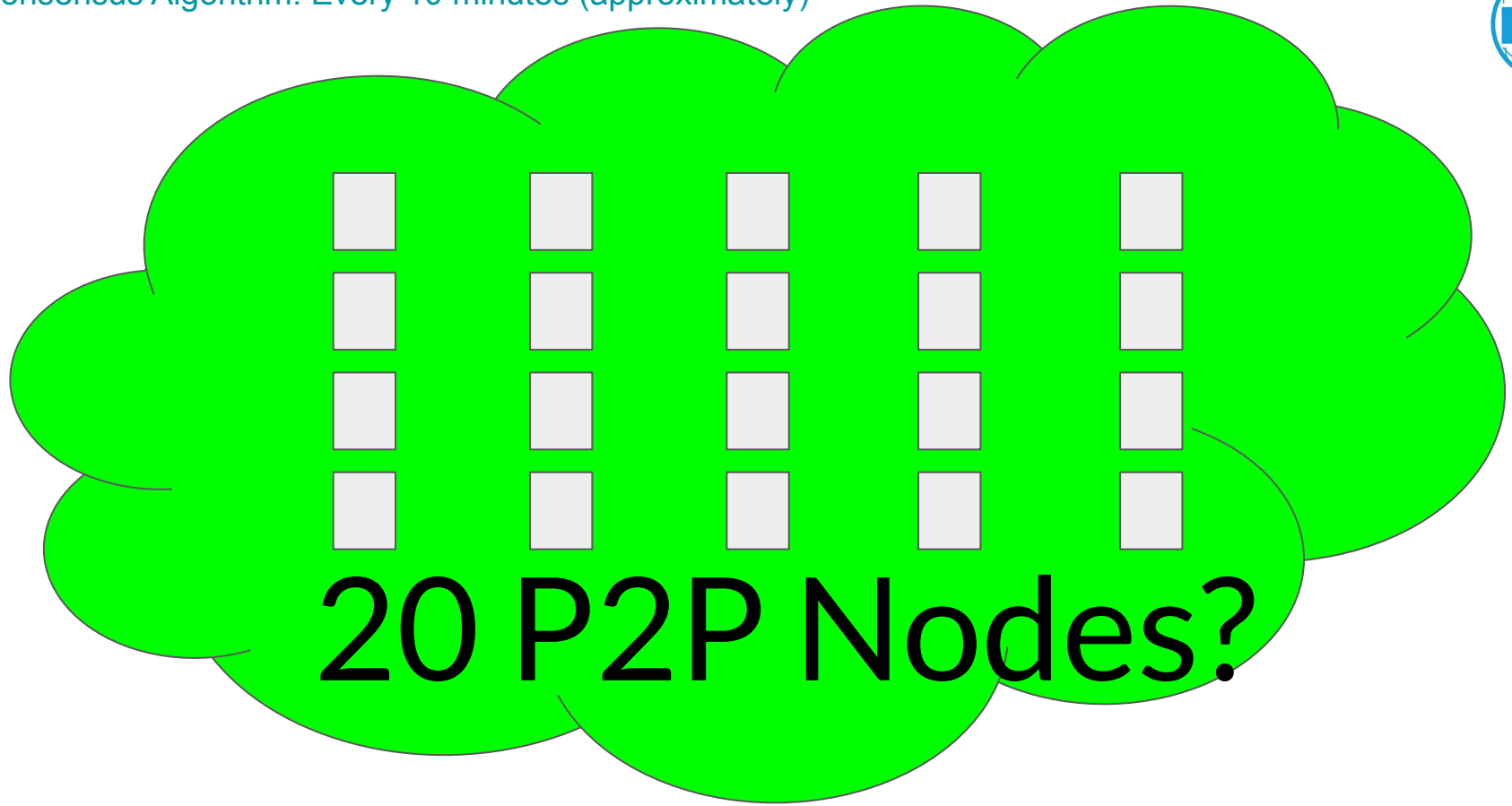


5 P2P Nodes?



10 P2P Nodes?

Consensus Algorithm: Every 10 minutes (approximately)



Noting: Fisher, Lynch and Paterson FLP 'Impossibility Result'

A large, bright green cloud-like shape composed of several overlapping circles. Inside the cloud, there are numerous small white squares scattered throughout. In the center of the cloud, the number '100,000!' is written in a large, bold, black font, underlined with a thick black line.

100,000!

Noting: Fisher, Lynch and Paterson FLP 'Impossibility Result'



Your Keys

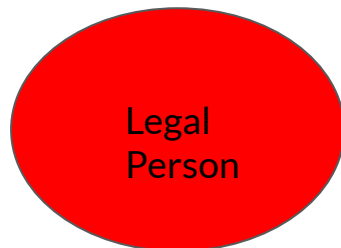
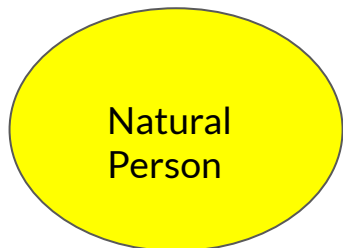


Your Rules

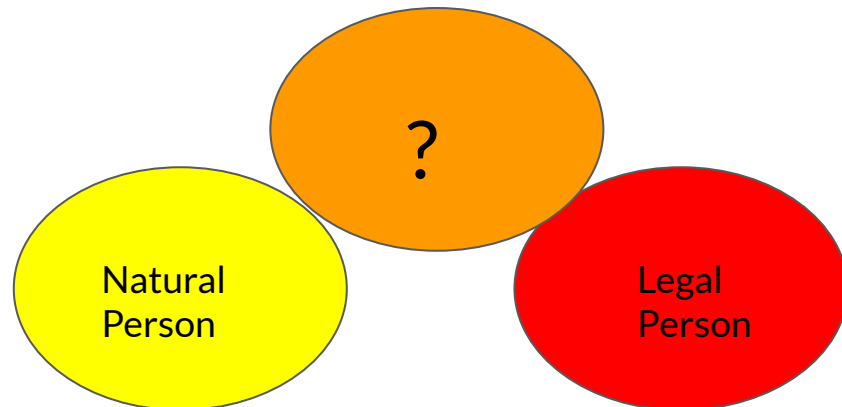
The DNS?



Legal
Identifier



Cryptographic Identifier



The Big Identifier Change?

Decentralized Identifiers (DIDs)



Brainchain 1: IDD + Accounting Rate Settlement

Distance = Cost

The Internet Disruption ...



Distance = ~~Cost~~



Brainchain 2: Firewall Security

Centralized = Trusted



The Bitcoin Disruption ... Perimeter Thinking is Dead

Centralized = ~~Trusted~~



Brainchain 3: Money

The Measure of Development

Time = Money



The Bitcoin Blockchain Disruption

Data = Money*

*1 btc = SWF 32,000 today approx

Bigger != Better

Developed/Industrialized/High-Income?



No one is above the Law

No nation is below mathematics



Thank you! :)



Questions!