

BLOCKCHAIN

MASTERCLASS SUMMARY

presented by



neuroware

INTRODUCING THE NEUROWARE FOUNDER



ONLY MSC BLOCKCHAIN COMPANY



SUPPORTED BY MDEC & MOF

Mark Smalley - CEO

Living in Malaysia for the past 20 Years

Building FinTech Applications for 15 Years

Spent 10 Years Building Tech Communities

Building Blockchain Apps for 5 Years

Ruben Tan - CTO

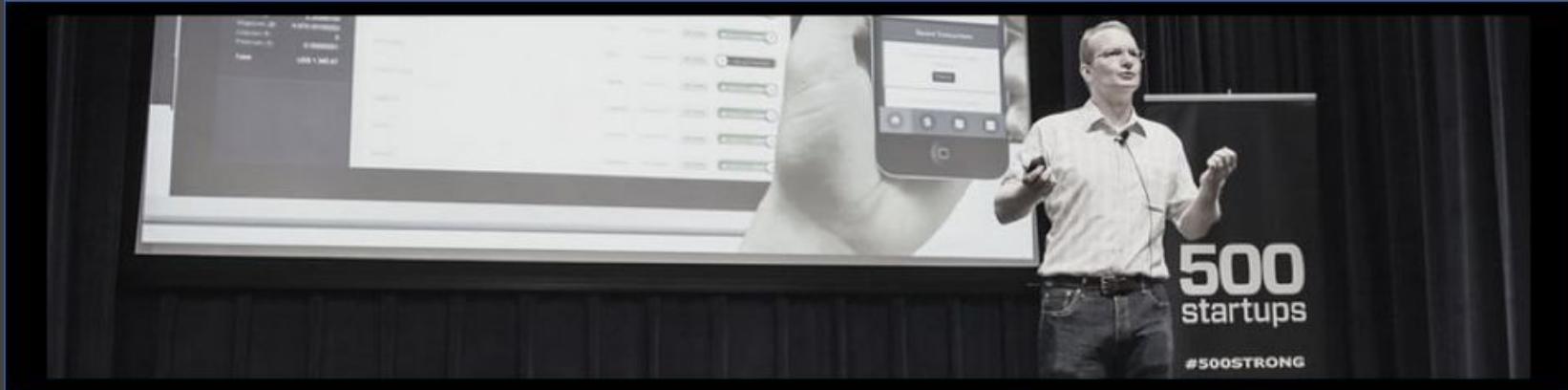
Building Web Applications for 10 Years

Active Community Evangelist & Presenter

Early Developer at MyTeksi and OnApp

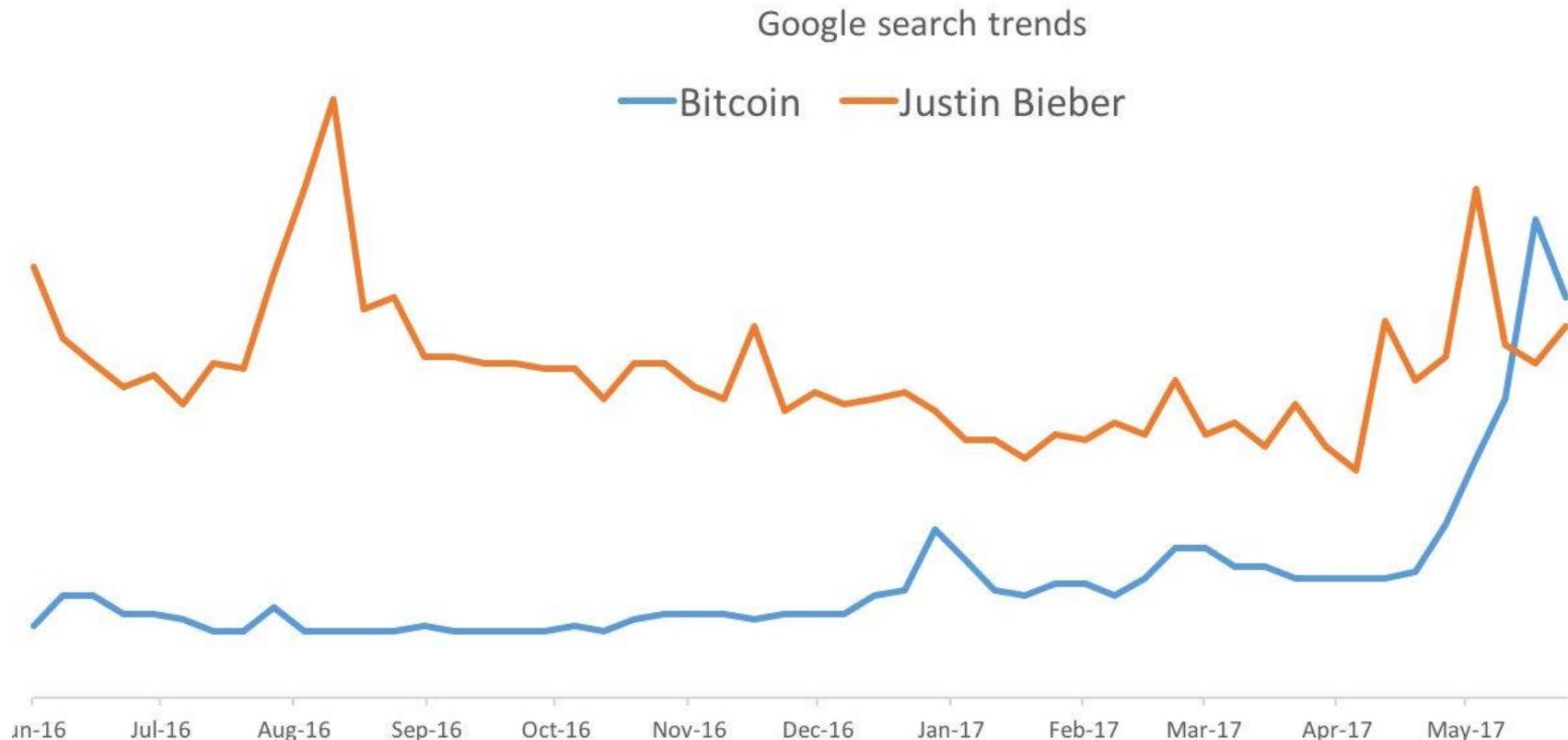
Studying Distributed Consensus for 5 Years

EXPERIENCED INNOVATORS IN AN EARLY ECOSYSTEM



- **Only Malaysian Company** to Graduate from 500 Startups in Silicon Valley
- 1st Company in Asia Providing Public Blockchain APIs & Developer Toolkits
- 1st in The World to Develop Non-Financial Blockchain Agnostic Protocols
- Helped Organize World's 1st Bank-Backed Blockchain Hackathon (DBS)
- Over 15 Years of Collective Blockchain Development Experience

WHY AM I HERE WITH YOU TODAY ...?



A BRIEF HISTORY OF MODERN MONEY

WHERE NO IDEA IS A NEW IDEA

BUT NONE ARE AS RELEVANT AS THE RAI STONES OF YAP



SHOPPING WAS NOT EASY



SO THEY CREATED THE WORLD'S FIRST PUBLIC LEDGER

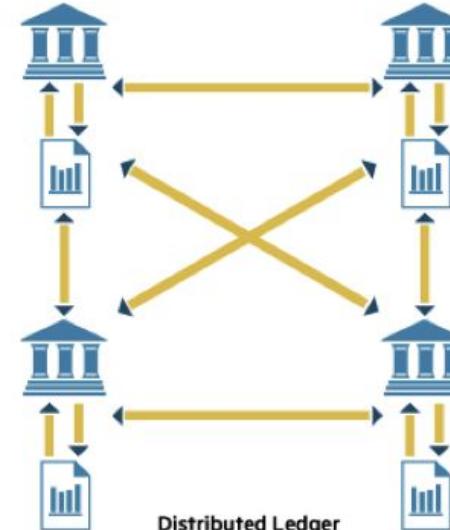
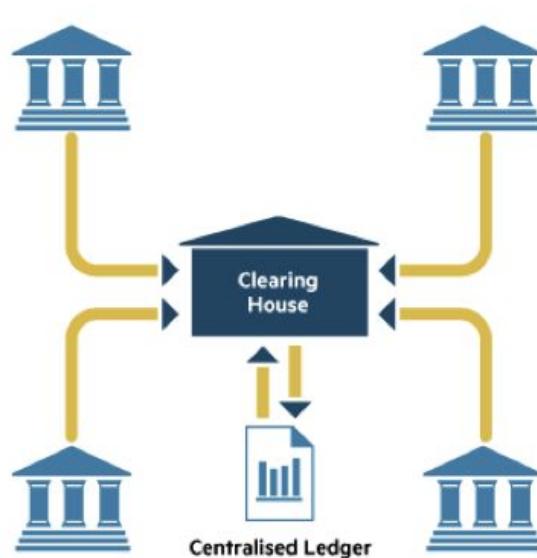


UPDATES REQUIRED GROUP CONSENSUS - STILL USED TODAY



- Size wasn't everything
- The history of each stone determined its individual value
- Conducting transactions quite literally involved a song & dance
- This required the majority of people from the village to be present

SANTANDER BANK - FIRST TO ADMIT US\$20B ANNUAL SAVINGS



- Reconciling Multiple Central Ledgers Vs Auto-Audited Distributed Ledgers?
- Batch Processing CSVs every 24 Hours Vs Really Real-Time Settlement?

BITCOIN

(the first application / popular digital asset)

Vs

BLOCKCHAINS

(underlying tech / shared public ledger)



PUBLIC NETWORKS

(built from the ground-up to be secure)

Vs

PRIVATE NETWORKS

(very similar to traditional databases)



PUBLIC BLOCKCHAINS

(battle tested, secure - able to go anywhere)

Vs

DISTRIBUTED LEDGERS

(missing blocks is also missing the point)

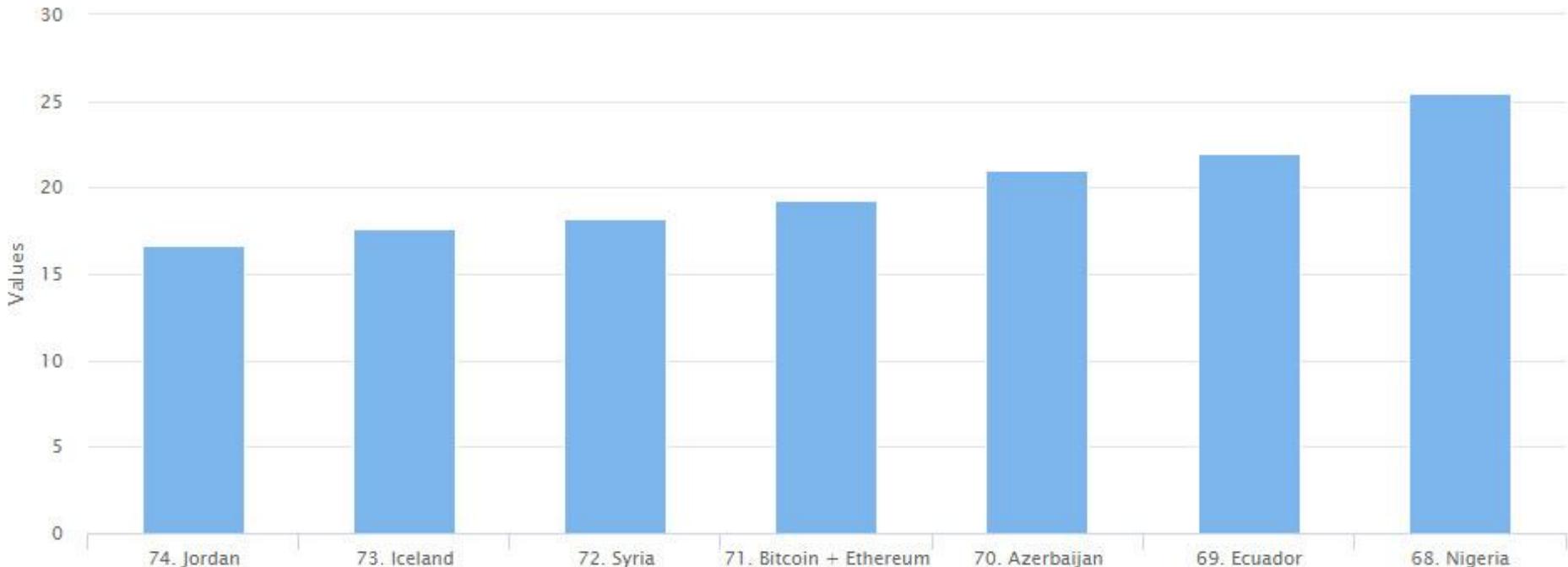


CONSENSUS - WHAT MAKES PROOF OF WORK SO SPECIAL ...?

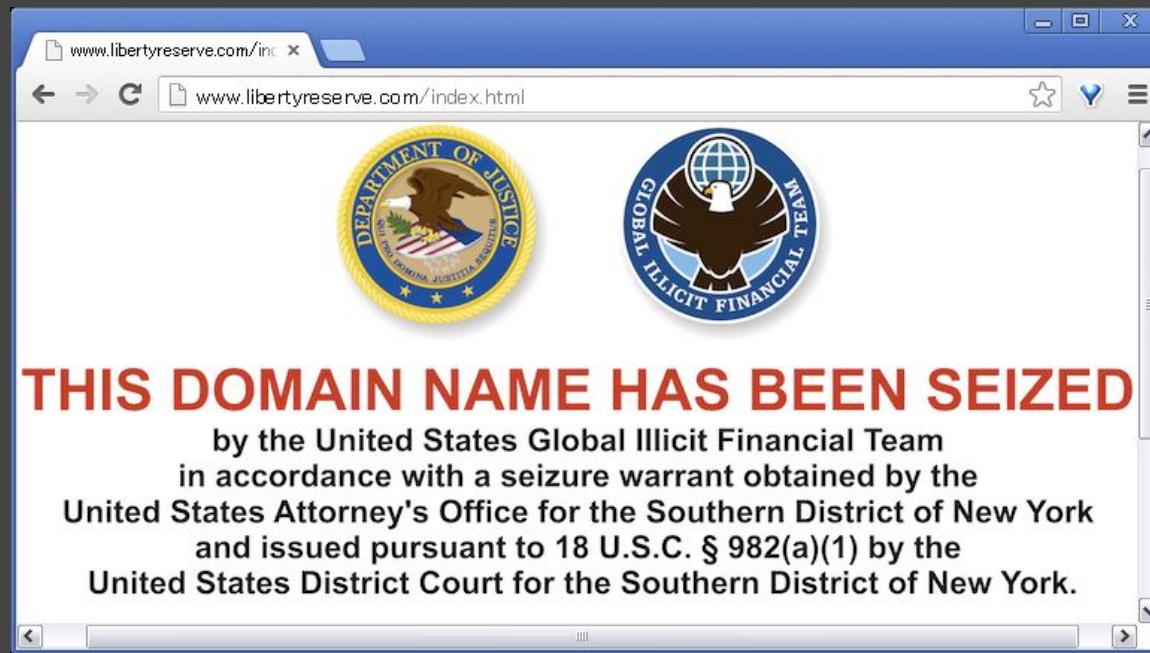


MORE ENERGY THAN ICELAND

Energy Consumption by Country inc. Bitcoin & Ethereum



BITCOIN NOT FIRST DIGITAL CURRENCY - 1st DISTRIBUTED ONE



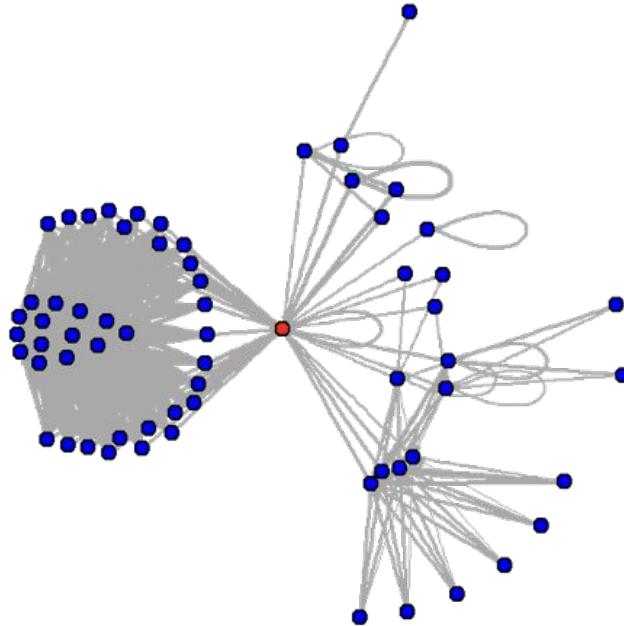
- FLOOZ - Shut down by FED in 2001
- LIBERTY RESERVE - Shut down by FED in 2013

TRUST IS SOLVED VIA TRANSPARENCY - IT'S OPEN TO ALL

```
{  
    "address": "DEHfgFYKL97gFFoYHM7UejXBGKjLFzD4za",  
    "total_received": 10000000000,  
    "total_sent": 8000000000,  
    "balance": 2000000000,  
    "unconfirmed_balance": 0,  
    "final_balance": 2000000000,  
    "n_tx": 4,  
    "unconfirmed_n_tx": 0,  
    "final_n_tx": 4,  
    "txs": [  
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            "block_height": 1213596,  
            "block_index": 35,  
            "hash": "3ebaecf042e0dbe20a35c0dd2700c83b13a5a1764e1882c2cc39e4bd81c326cf",  
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            "fees": 1000000000,  
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            "ver": 1,  
            "lock_time": 0,  
            "script": "OP_DUP OP_HASH160 3ebaecf042e0dbe20a35c0dd2700c83b13a5a1764e1882c2cc39e4bd81c326cf OP_EQUALVERIFY OP_RETURN"  
        }  
    ]  
}
```

EVERYONE HAS A RECORD OF **EVERYTHING** - SO BE CAREFUL

BTC transaction network for
1NfRMkhm5vjizzqkp2Qb28N7geRQCa4XqC



WHAT ARE THE BENEFITS OF PUBLIC BLOCKCHAINS?

- They provide an immutable tamper-proof audit-trail of the truth
- Data can be easily shared and independently verified by third-parties
- Vastly increased security that is much less vulnerable to attack or outage
- Programmable contracts that can radically reduce costs and errors



“While Fintech Disrupts Banks,
the Blockchains Disrupt Fintech”

THIS GIVES BITCOIN THE CURRENCY SOME UNIQUE PROPERTIES

Traits of Good Money	Gold	\$\$\$	Private DLTs	Bitcoin
Durability		fragile		
Portability	heavy			
Divisibility	difficult	limited		
Uniformity	if processed		censored	
Limited Supply	theoretically	printed at will	central mint	
Sunnah Money	Commodities	\$\$\$		Bitcoin
Intrinsic Value		representation	none	
Inflation Proof	unknown	debt based	no	
Acceptability	limited		unknown	growing daily
Decentralized		man made	unregulated	

THE MOST IMPORTANT OF ALL - THERE ARE NO BITCOINS



HOW DOES IT WORK?

BLOCKCHAIN TECHNOLOGY

INTERESTING BITCOIN BLOCKCHAIN FACTS TO REMEMBER

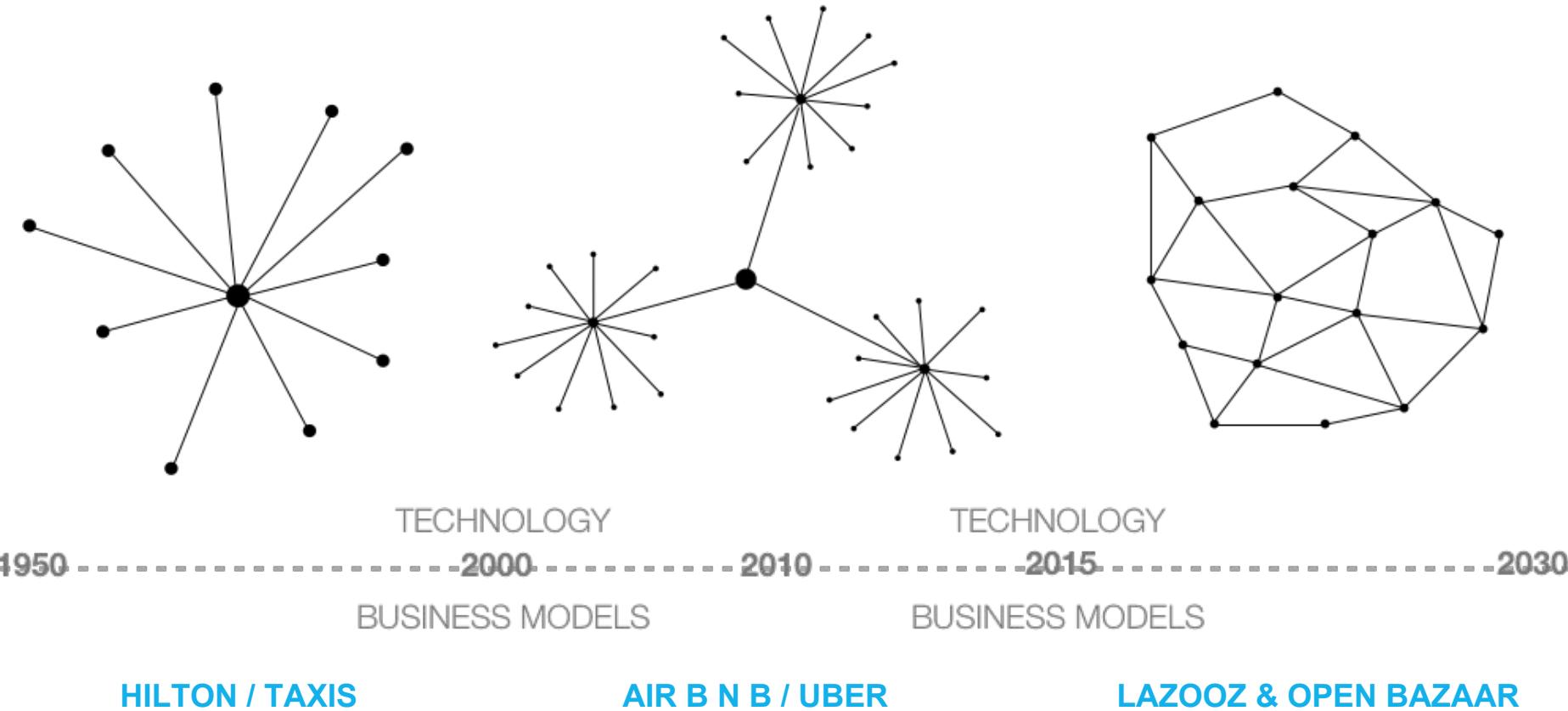
- Bitcoin blockchain released in January 2009 by Satoshi Nakamoto
- US\$13 per coin in 2013 (when we bought) - now US\$4,200+ per coin
- The network is currently processing over 230,000+ daily transactions
- Contributes to over US\$5+ billion of daily global crypto-transactions
- The network's market capitalization is currently over **US\$69+ billion**
- 21 million finite supply, with 16 million coins discovered so far
- Supply is decreasingly dispersed every 10 minutes
- Final coins released on May the 7th, 2140
- **But most important of all is the technology...**

BITCOIN AND BLOCKCHAINS HAVE NO NEW TECHNOLOGY



- HASH - Theorized in the 1800s - Coined by IBM in the 1950s
- ECDSA - Digital Signatures using Elliptic Curve Cryptography
- P2P - Peer to peer protocol popularized by Napster in 1999

THE EVOLUTION OF EVERYTHING



BLOCKCHAINS ARE SIMPLY A NETWORK OF NODES

- Each member of the network runs their own node and all nodes are equal
- The blockchain becomes more secure as more nodes join the network
- All transactions across the entire network are tracked by each node
- There are no actual coins - there is only a ledger of who owns what
- On the blockchain - no one knows you're a fridge

ON THE BLOCKCHAINS EVERY ACCOUNT IS A SET OF KEYS



AND EACH “ADDRESS” REQUIRES A PRIVATE KEY TO ACCESS IT



SOME ADDRESSES EVEN REQUIRE MULTIPLE KEYS



KEY PAIRS - ULTIMATELY USED TO SIGN TXs & MESSAGES



ONE PUBLIC KEY



MULTIPLY PRIVATE KEYS

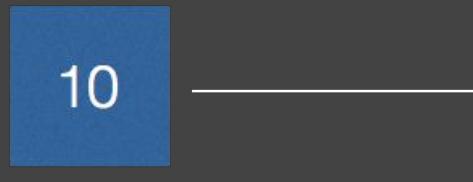
- Example of a Bitcoin public address (derived from the public key):
`1GzBZ7eK6wzNjp1Wt6AxHo73kJL2tzoErq`
- Example of a Bitcoin private key (used to transfer funds from address):
`L1winVkoRmxMdHKbwssx33Z9ZEuXeJ1eP9CVYvnNn4TdYA32GsWY`
- Example of a Bitcoin extended private key (used by HD protocol):
`xprv9s21ZrQH143K2Ywhg9bhZ5nd31t3EbXsg8v28gkKjSm9PA3PiZ89dWW6YKxWZa2pgTuErQ65K46KGVu1xCRBCK3Ppd465QGtH7TmxAEiLv`

WHAT'S IN A BITCOIN TRANSACTION?

- Multiple unspent inputs are used in order to form the total value sent
- Cannot send proportions of inputs, must use all and send the change back
- Because a single transaction can send multiple values to multiple outputs
- Fees are based upon the total size (inputs and outputs) rather than value
- Paying these fees is done by forgetting to send some value to someone
- Transaction scripts can contain complex variables (multi-sig & timed locks)
- However, they can only contain one OP_Return (38 bytes of arbitrary data)

ALICE CAN'T SEND WHAT SHE DOESN'T HAVE AND BOB WANTS 5

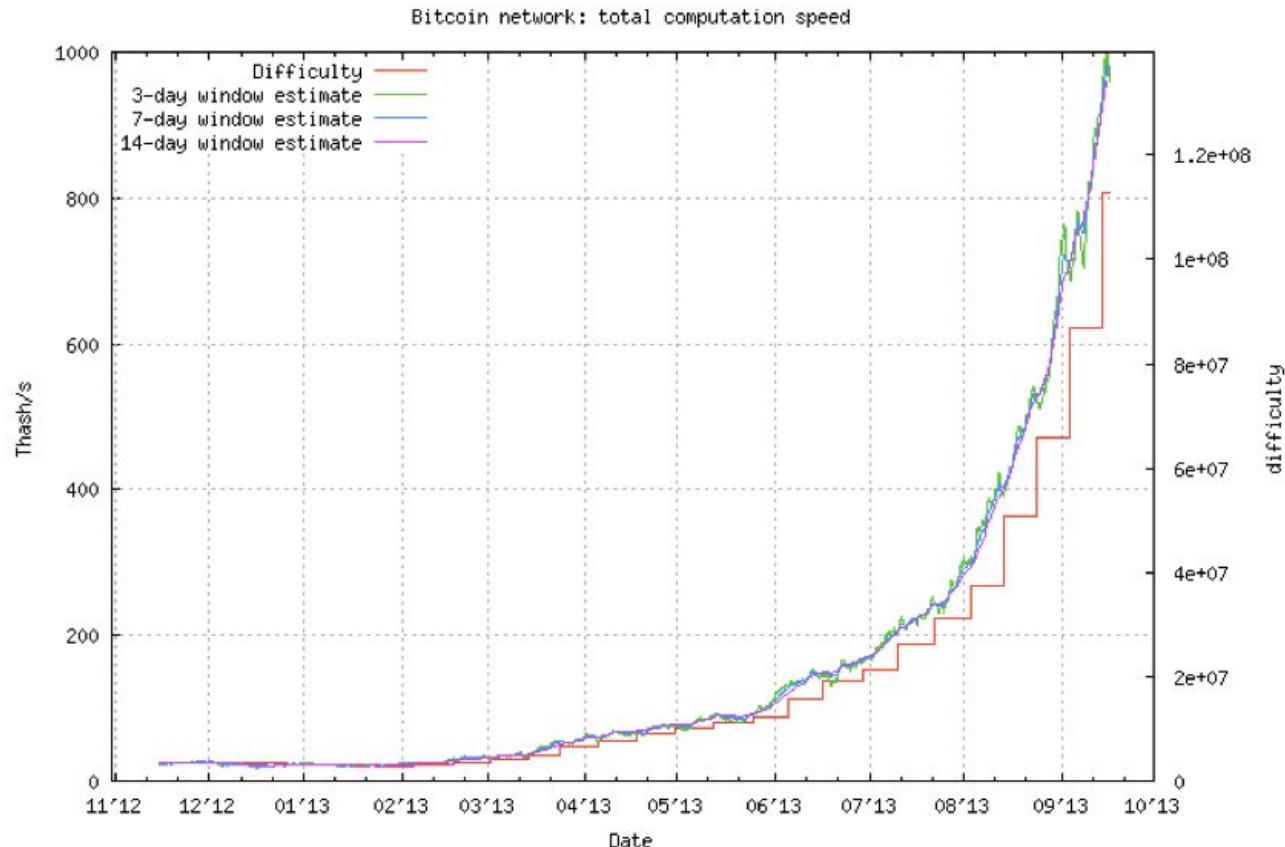
ALICE'S UNSPENT INPUTS



MINING FOR NUMBERS - NOT GOLD

- To reach consensus as to which node has the right to add the next block to the chain, miners compete in a race to solve cryptographic equations
- Miners gather and in-turn verify unconfirmed transactions into blocks
- They then add a nonce (one use number) to the block and hash it
- If the hash has X number of zeros at the beginning it becomes a valid block
- Otherwise the miners increase the nonce and they hash the block again
- Solving these cryptographic equations is becoming increasingly difficult

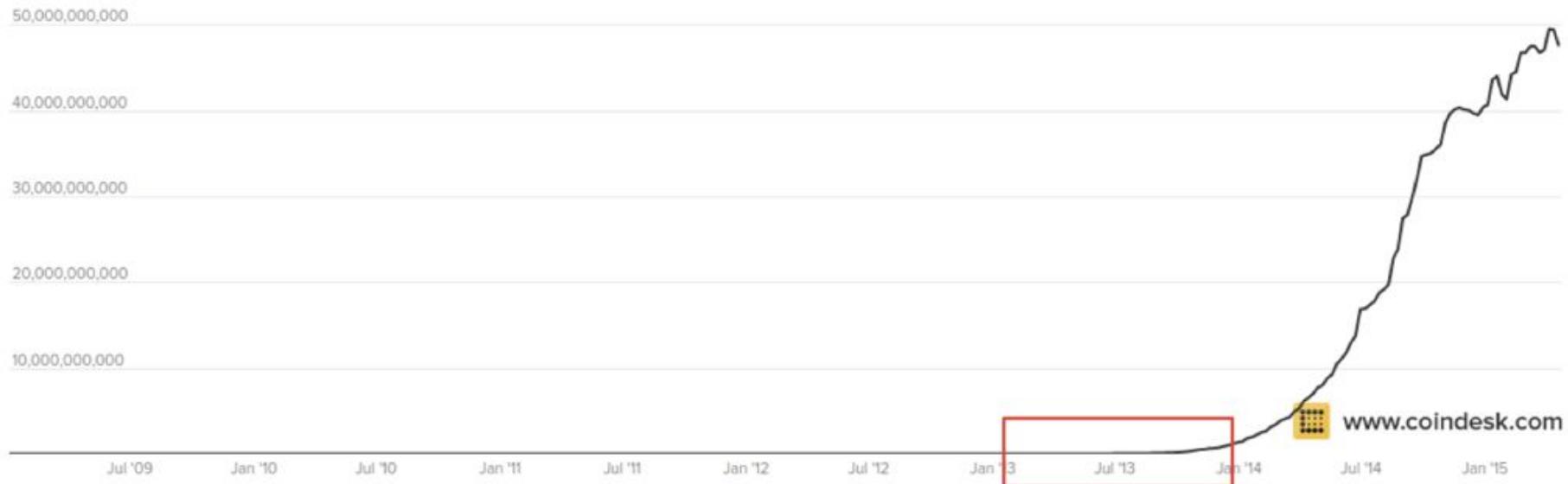
THIS IS THE HASHING POWER OF THE NETWORK IN 2013



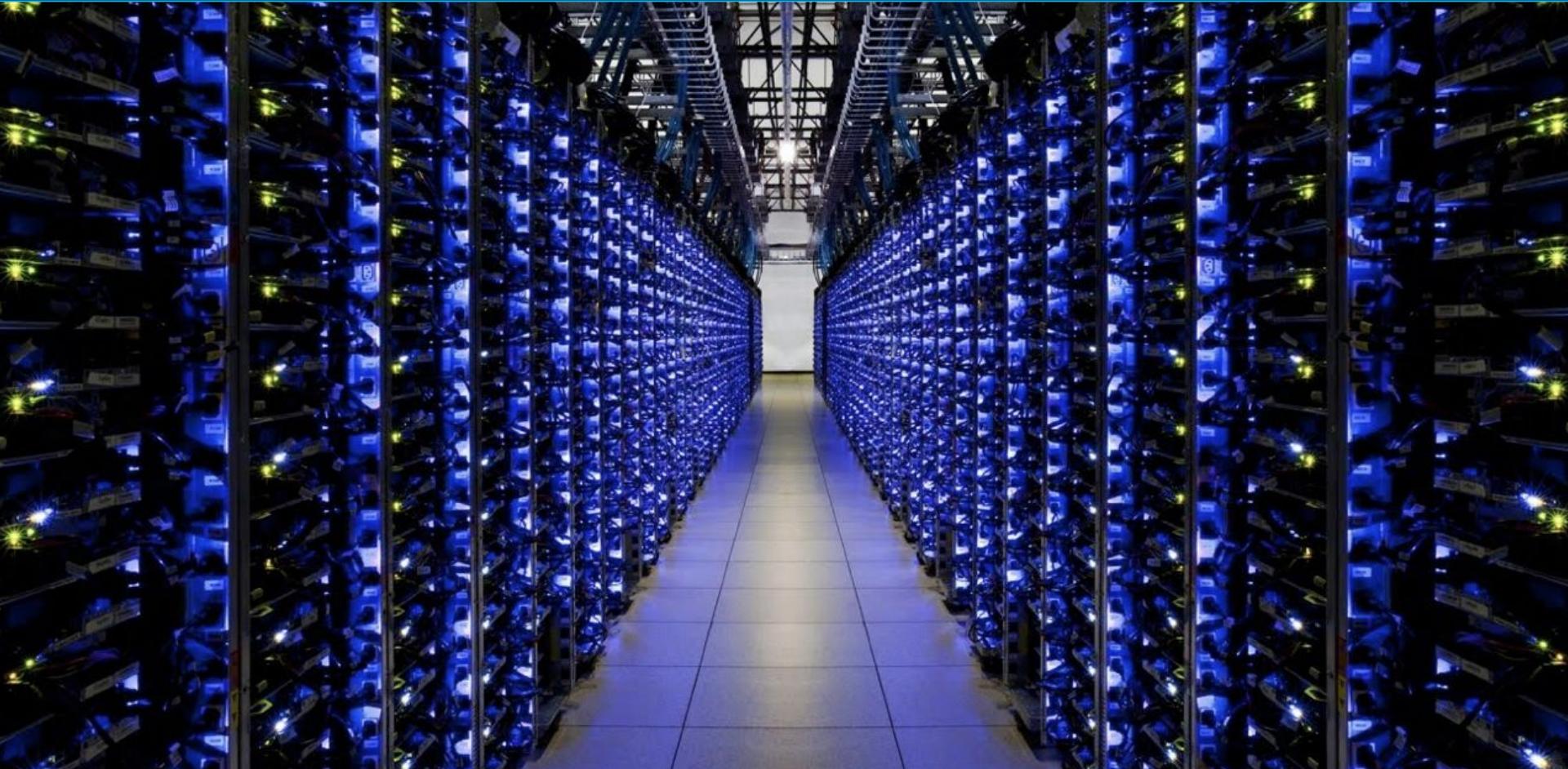
FROM CPUs, to GPUs and then to FPGA



2013 to 2015 - MINING IS NOW A BILLION DOLLAR BUSINESS



DID NOT TAKE LONG FOR ASIC + LIQUID NITROGEN TO CATCH ON

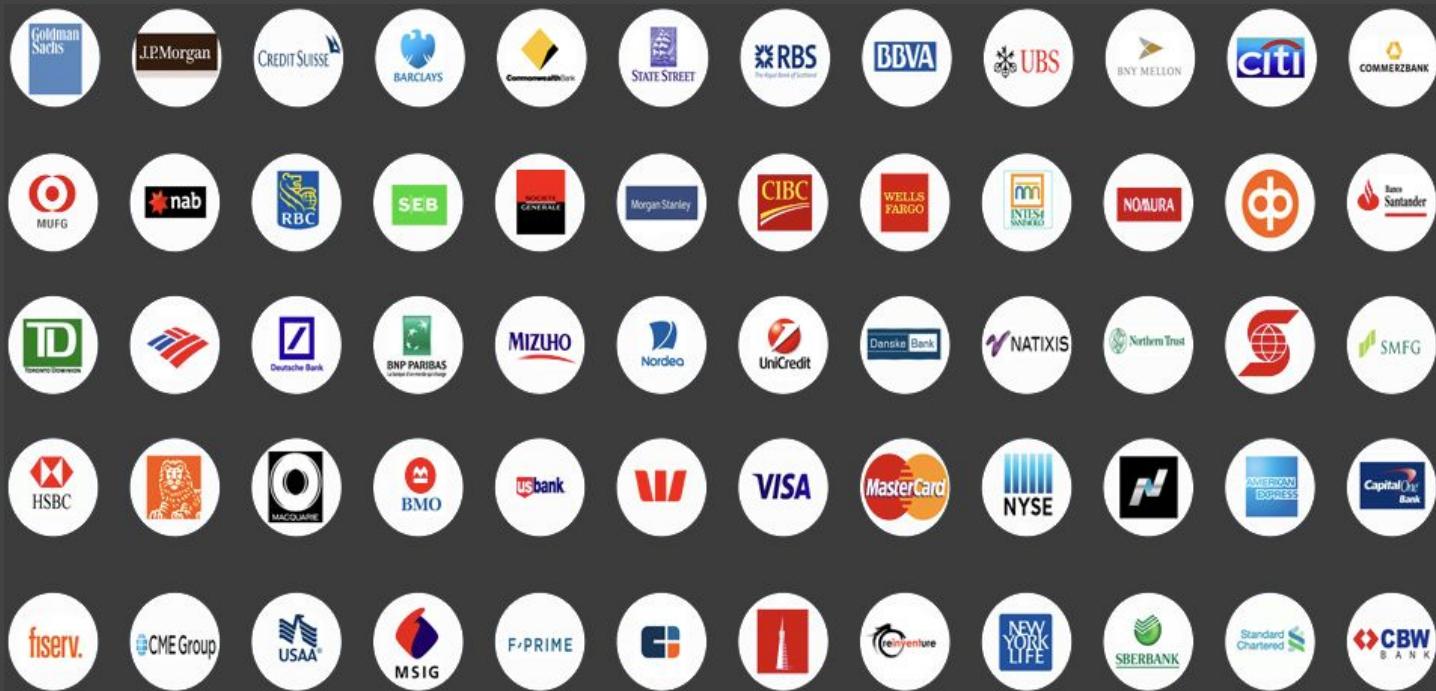


BITCOIN ISN'T EVERYTHING

BILLIONS INVESTED IN BLOCKCHAINS

BANKS ARE MOVING FASTER THAN USUAL

In 2016, over 100 banks and leading financial institutions started blockchain projects, with more than US\$1 billion dollars being invested into the ecosystem - in just one year!



BLOCKTECH in FINANCIAL SERVICES Landscape

APPLICATIONS & SOLUTIONS



MIDDLEWARE & SERVICES



INFRASTRUCTURE & BASE PROTOCOLS



SOME OF THE INSTITUTIONS LEADING THE WAY



Custom blockchain
for settlements



Standard
Chartered



Blockchain based
trade finance platform

Blockchain based
loyalty platform

Blockchain based
remittance platform



multiple blockchains for cross-
border payments and loyalty



1st Bank in ASEAN to join an
Asian Blockchain Consortium



Patented a blockchain
based wire transfer system



IMITATION IS THE BEST FORM OF FLATTERY



- Coins forked each other with minor tweaks
- Basic breakout alt-coin successes included Litecoin and Dogecoin
- Dash (previously known as DarkCoin) worth noting due to governance

US\$13B PRE-MINED COINS - “IT SAVES ELECTRICITY”

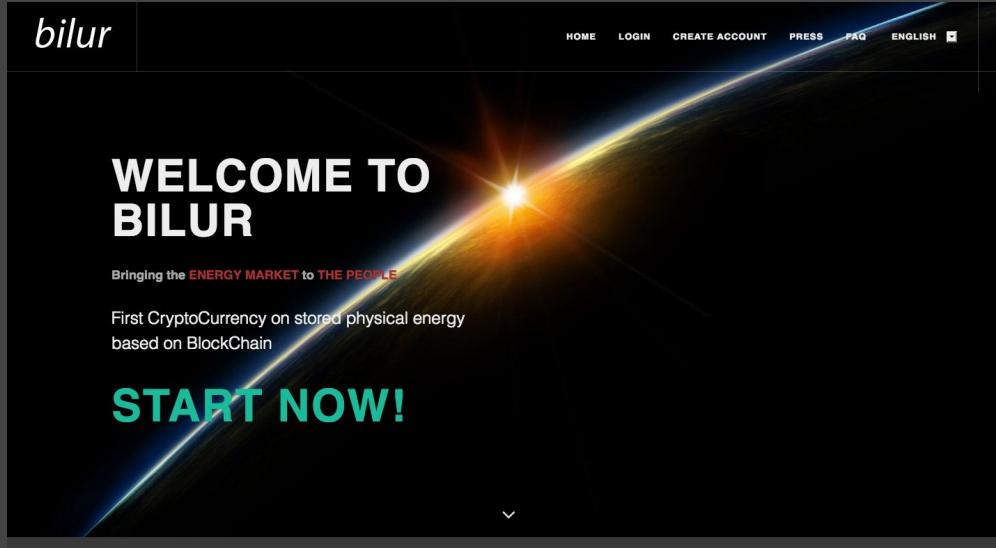


STELLAR



- **Ripple & Stellar** - Massive Founder Dispute / Drama
- Founders of premined crypto-currencies distribute wealth
- The process of adding blocks then becomes permission based
- Offering open ledgers that “represent” value is taking a step backward

PHYSICALLY BACKED CRYPTO ALSO REQUIRES TRUST

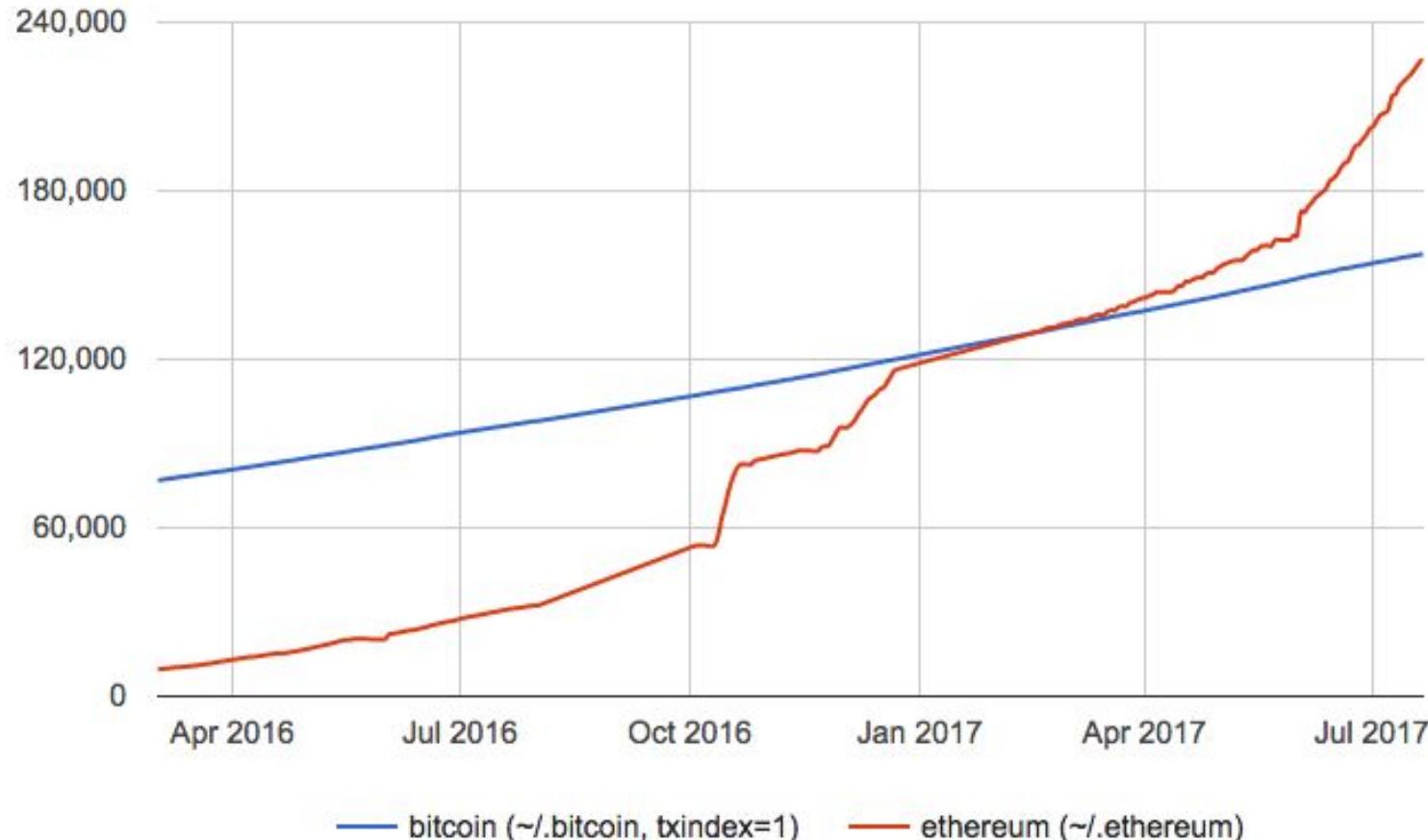


- Crude oil backed crypto
- Gold backed crypto
- Brick backed crypto
- Ledgers for transferring; diamonds, land & trainers

COMPARING OUR 4 + (1 X 2) FAVOURITE PUBLIC BLOCKCHAINS

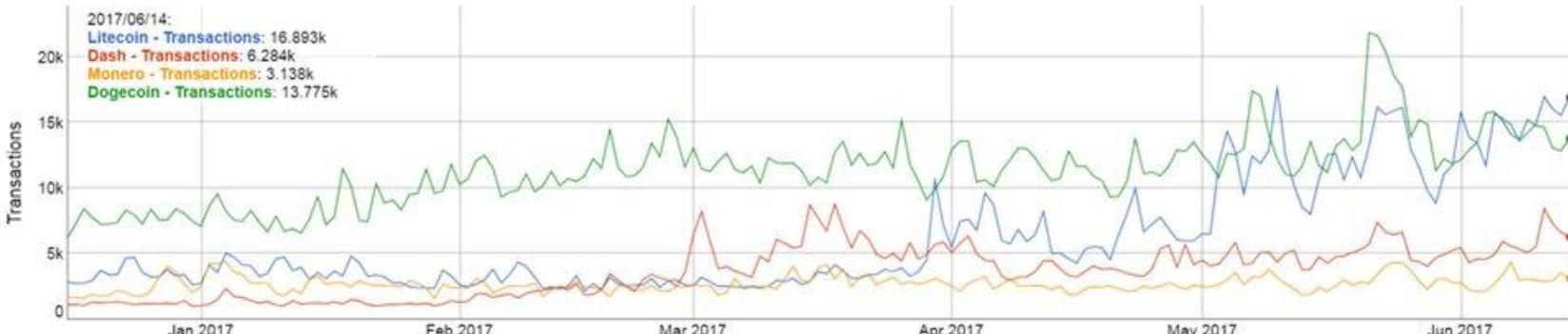
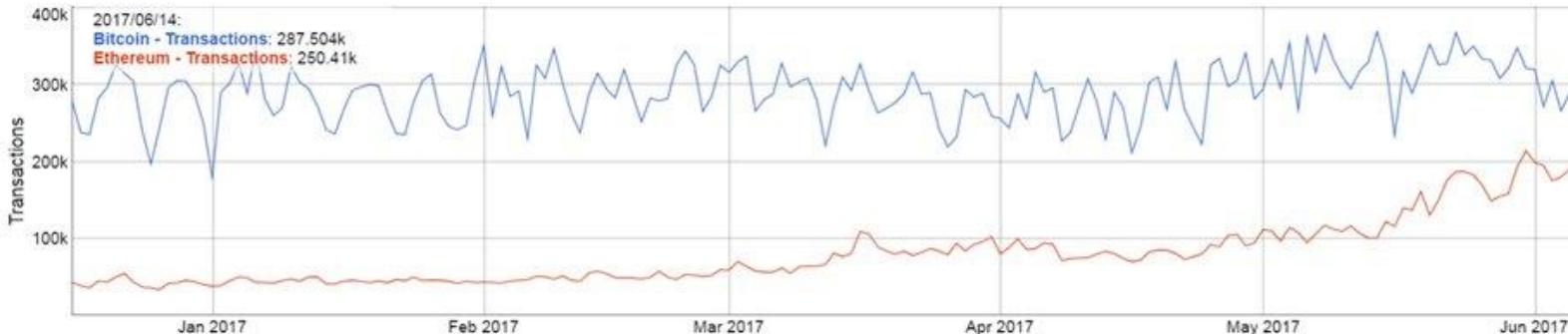
Data from CoinGecko on June 6th	Bitcoin	Litecoin	Dogecoin	Dash	Ethereum	ETC
Coin Limit	21 Million	84 Million	UNLIMITED	22 Million	Unknown	200+ Million
Current Supply	16 Million	51 Million	100 Billion	7 Million	91 Million	91 Million
Mining Algorithm	SHA-256	Scrypt	Scrypt	X11	Ethash	Ethash
Hash-Rate	644 PH/s	7.2 TH/s	6 TH/s	3.6 TH/s	30 TH/s	Unknown
Average Block Time	10 Minutes	2.5 Minutes	1 Minute	2.5 Minutes	10 Seconds	10 Seconds
Launched	03 / JAN / 09	07 / OCT / 11	08 / DEC / 13	19 / JAN / 14	30 / JUL / 15	25 / OCT / 16
US\$ Price per Coin	US\$2,800+	US\$30	US\$0.0038	US\$149	US\$260	US\$17
Current Market Cap	US\$47+ B	US\$1.5+ B	US\$420+ M	US\$1+ B	US\$24+ B	US\$1.6+ B
Size of Raw Blockchain	135 GB	8 GB	21 GB	3 GB	180 GB	120 GB
Hardware Cost of 51% Attack	US\$1.6+ B	US\$240+ M	US\$200+ M	US\$450+ M	Unknown	Unknown

DOING “ANYTHING” TAKES UP A LOT OF SPACE



ONLY ETHEREUM CURRENTLY COMPETES ON TRANSACTIONS

Number of Unique Transactions per Day in 2017



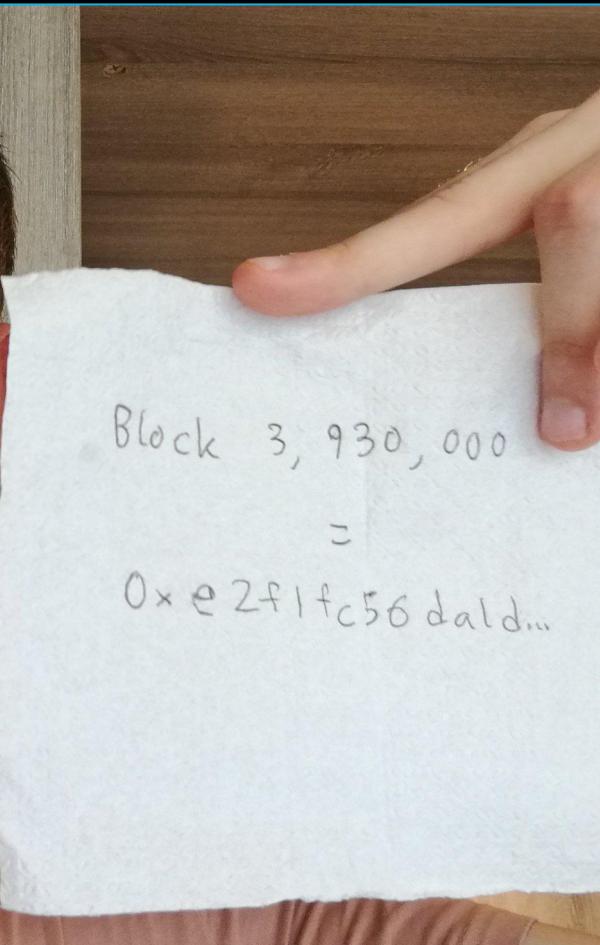
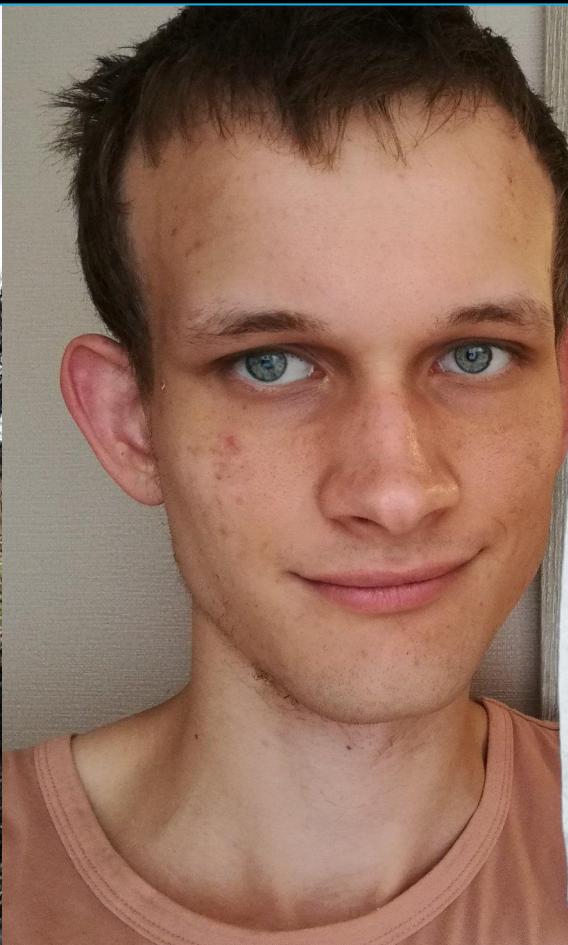
ETHEREUM TOOK THINGS SEVERAL STEPS FURTHER



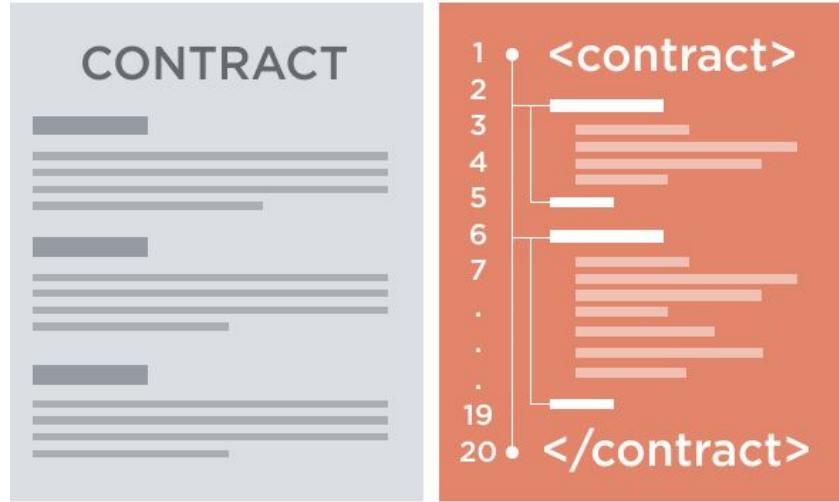
THE WORLD'S SUPER COMPUTER...?

- Raised US\$15 Million in **token-sales** when launching their Ether currency
- Aiming to be the first turing complete blockchain, they have almost achieved it
- Heavily supported by Microsoft and also used by IBM for their IoT platform
- Unlike BTC, we know who built it - currently uses PoW, plans to switch to PoS
- However, the more moving parts a system has - the more likely it is to break

HAVING A KNOWN LEADER HAS ITS (US\$4B+) CONSEQUENCES

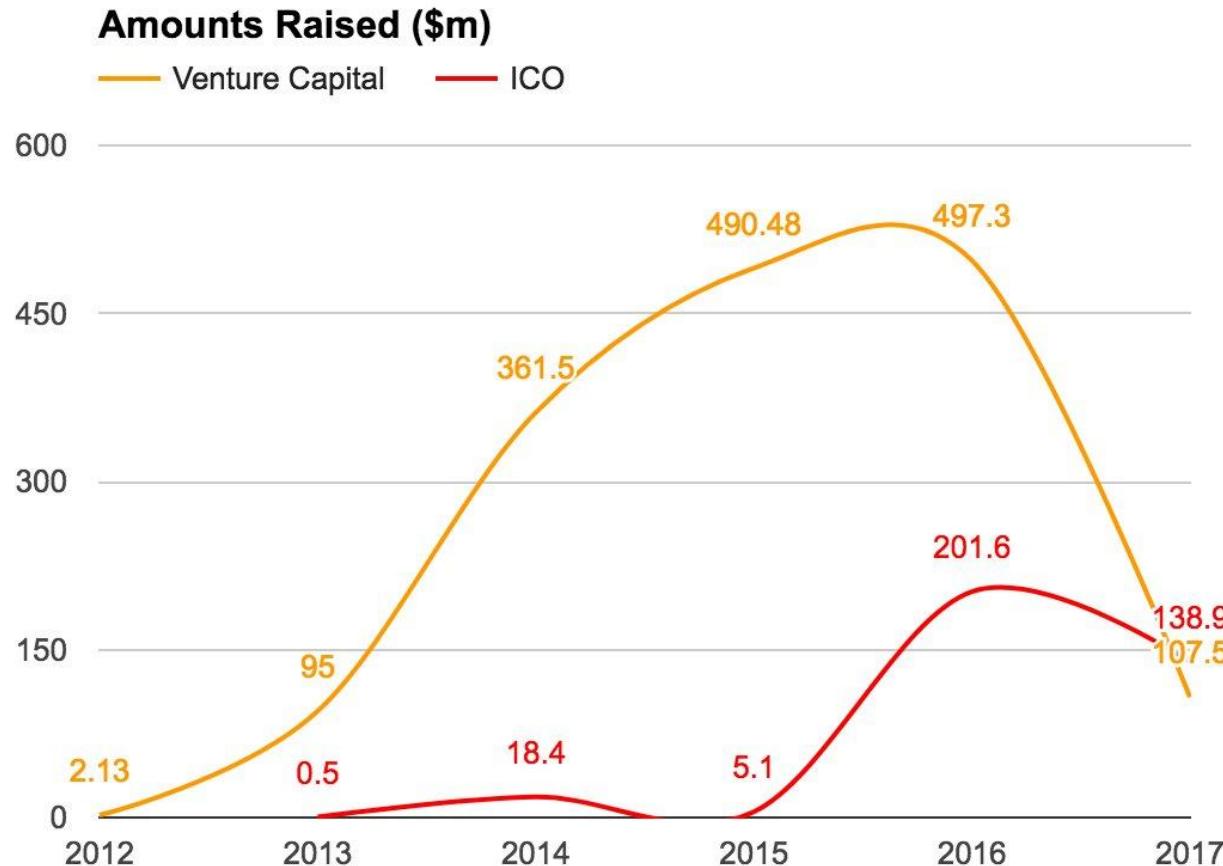


SMART CONTRACTS ARE EVERYWHERE

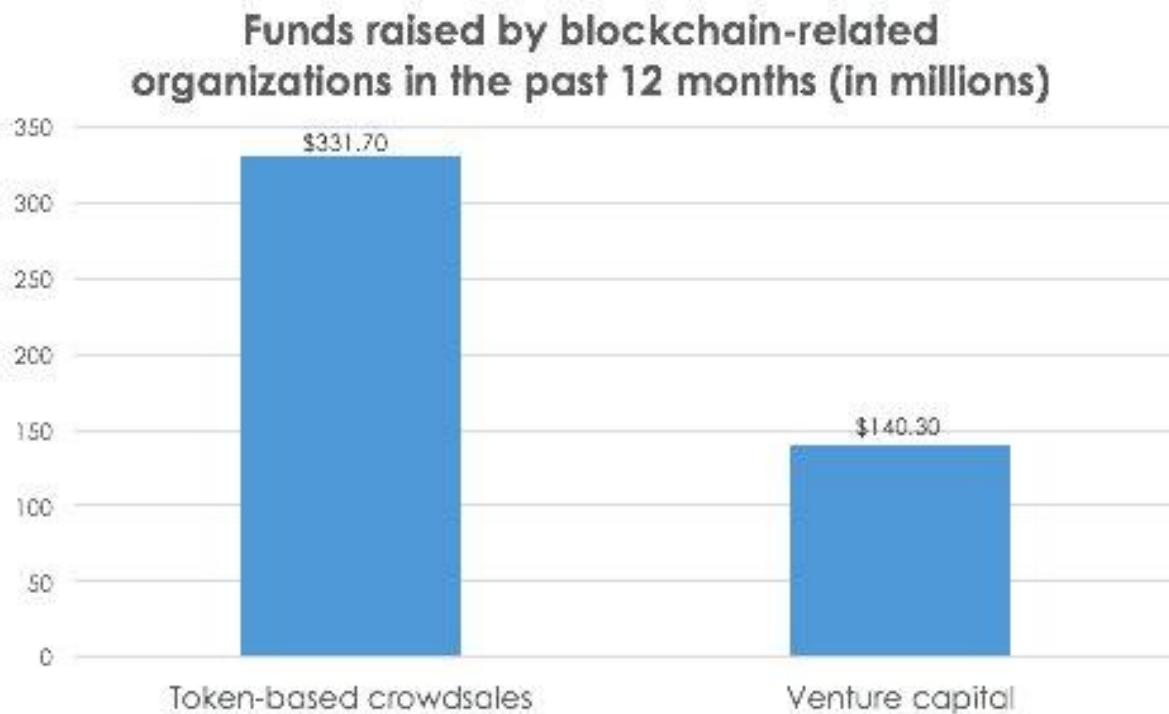


- Even Bitcoin utilizes basic smart contracts (with over 100 script functions)
- Smart contracts are snippets of code stored and executed by the network
- They can perform transactional based events if defined conditions are met

TOKEN SALES - ICOs ARE THE NEW IPOs OF CRYPTO-LAND

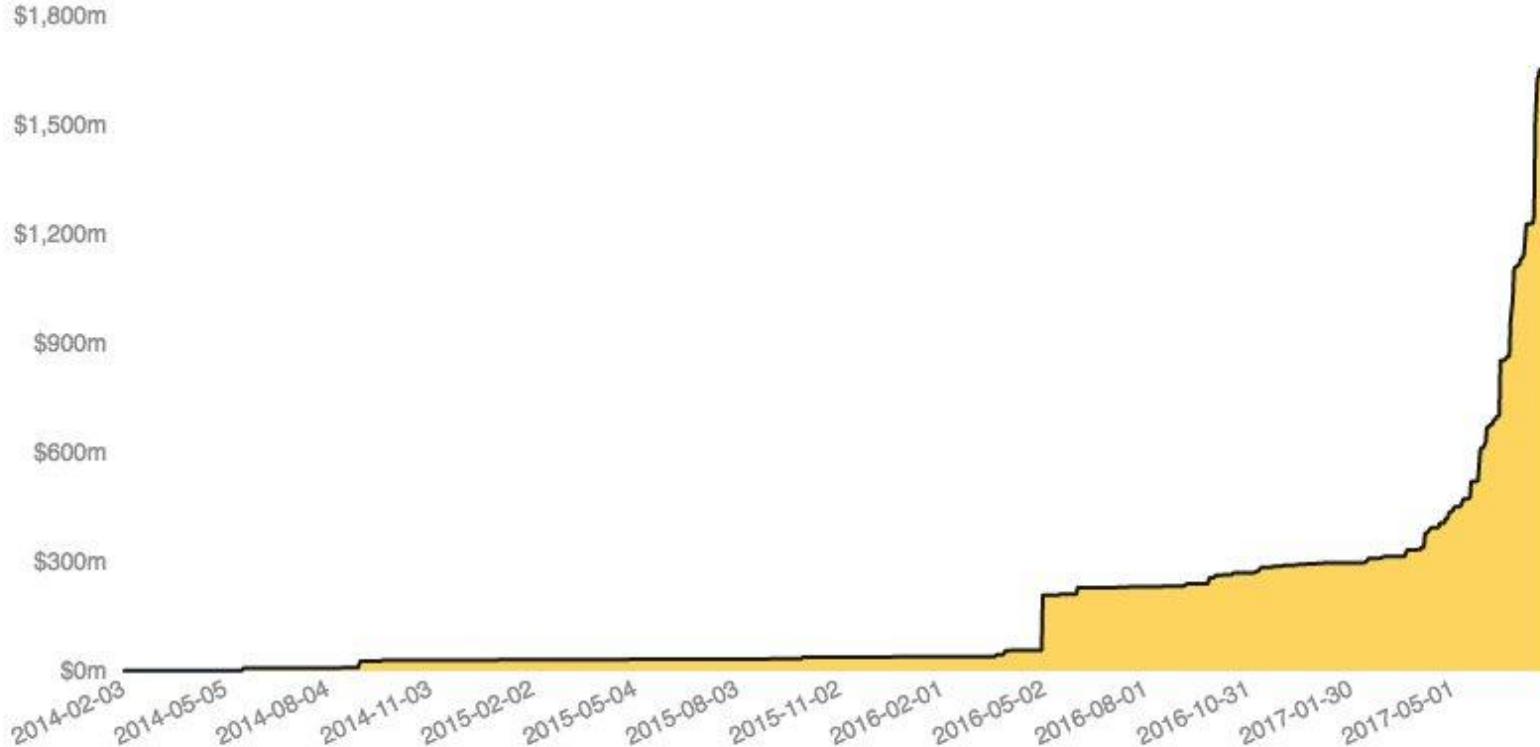


THE LAST 60 DAYS HAS CHANGED THE LAST 12 MONTHS



OVER US\$1.6 BILLION RAISED TO DATE

All-Time Cumulative ICO Funding



(WAS ONCE) LARGEST CROWDFUNDED PROJECT EVER - US\$150M

THE DAO IS AUTONOMOUS. |

1071.36 M

DAO TOKENS CREATED

10.73 M

TOTAL ETH

116.81 M

USD EQUIVALENT

1.10

CURRENT RATE
ETH / 100 DAO TOKENS

15 hours

NEXT PRICE PHASE

11 days

LEFT
ENDS 28 MAY 09:00 GMT



WOULD HAVE BEEN WORTH US\$4+ BILLION AT TODAY'S RATES

THE DAO IS AUTONOMOUS. |

1071.36 M

DAO TOKENS CREATED

10.73 M

TOTAL ETH

116.81 M

USD EQUIVALENT

1.10

CURRENT RATE
ETH / 100 DAO TOKENS

15 hours

NEXT PRICE PHASE

11 days

LEFT
ENDS 28 MAY 09:00 GMT



ACTUALLY WORTH US\$214+ MILLION ON ETHEREUM CLASSIC

THE DAO IS AUTONOMOUS. |

1071.36 M

DAO TOKENS CREATED

10.73 M

TOTAL ETH

116.81 M

USD EQUIVALENT

1.10

CURRENT RATE
ETH / 100 DAO TOKENS

15 hours

NEXT PRICE PHASE

11 days

LEFT
ENDS 28 MAY 09:00 GMT



QTUM - SINGAPORE - RAISED OVER US\$15 MILLION IN 5 DAYS

CROWDSALE RESULTS

QTUM SOLD

51,000,000 QTUM

TIME SPENT

117 HOURS



11,156.766

BTC



77,081.031

ETH

100.00 %

NOW WITH SELF GOVERNANCE PROTOCOL
(similar to dash - with votable parameters for block size and gas prices)

COSMOS - RAISED US\$16M+ IN 28 MINUTES

CØSMOS

Blog Plan FAQ Whitepaper About GitHub 

 Fundraiser



INTERNET OF BLOCKCHAINS

The Cosmos fundraiser raised **\$16.8 million USD** and finished on April 6, 2017 6:28AM PDT.

Subscribe

 Open Fundraiser

 Fundraiser Results

 Contribution Terms

 Discuss on Slack



 BITCOIN
MAGAZINE



 BRAVE NEWCOIN.
Digital Currency Insights

 COINALERT
Crypto Currency News 24/7

 CoinDesk



 cryptocoins
news



 Finextra

 forklog

 FORTUNE

 hedgeweek

 International
Business
Times

 LINUX.COM



 ONMSFT

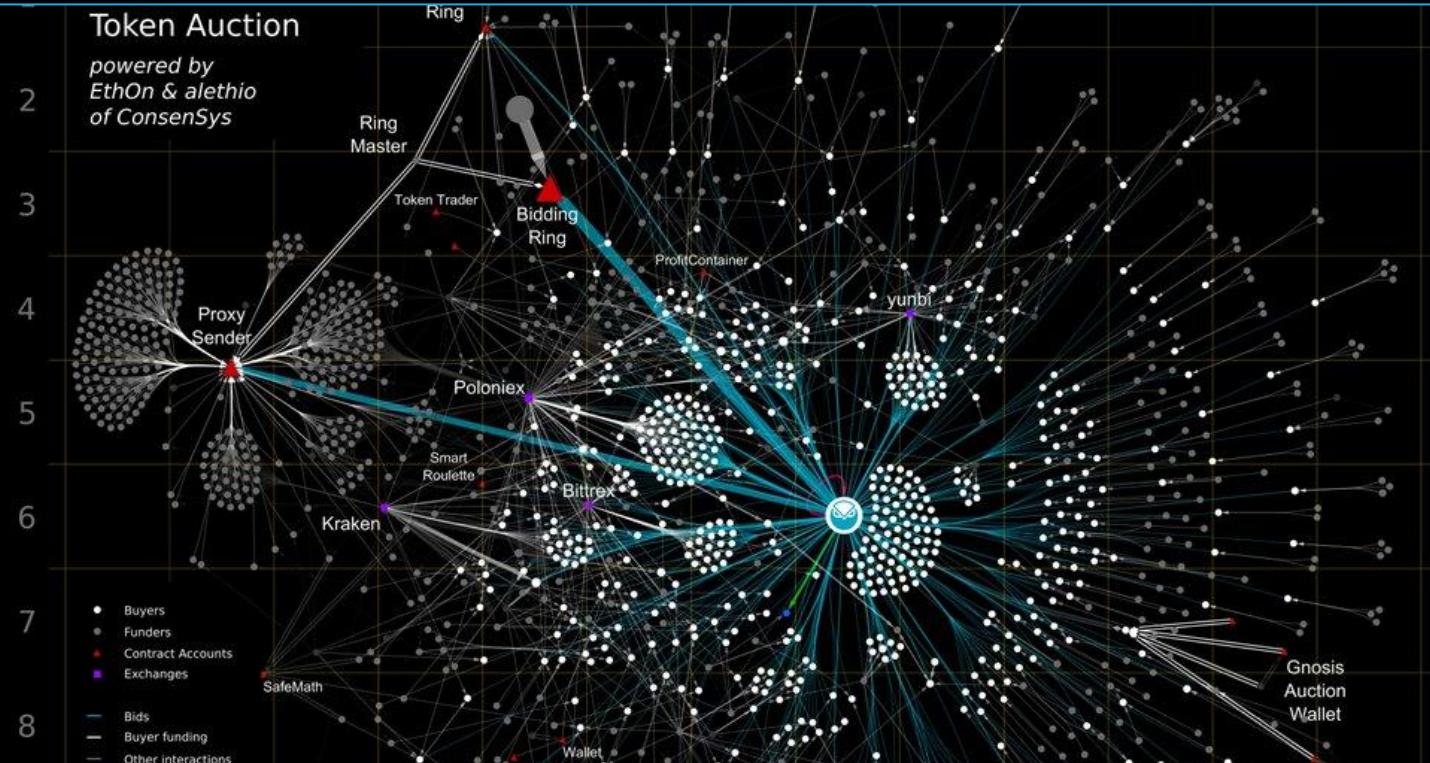
 siliconANGLE

 THE
CLOUD
MAIL

 ME



GNOSIS - US\$12+ MILLION IN UNDER 10 MINUTES



NOW HAS A MARKET CAP OF US\$200+ MILLION
(pre-product - let alone pre revenue)

MOST POPULAR - BAT - US\$35+ MILLION IN UNDER 30 SECONDS



basicattentiontoken

INTRODUCING BLOCKCHAIN-BASED
DIGITAL ADVERTISING

The BAT Sale is now closed. Thank you to all who participated!

SO MUCH INTEREST IT TEMPORARILY BROKE ETHEREUM
(network was flooded for hours with some TXs spending US\$2K+ for fees)

THEN CAME STATUS.IM - RAISED US\$270M IN UNDER 3 HOURS

What is Status?

Status is an open source messaging platform and mobile browser to interact with decentralized applications that run on the Ethereum Network.

Download Alpha
Android



Request TestFlight
IOS



300K+ TRANSACTIONS IN 1 DAY - TRADING CEASED AT THESE:



MALAYSIA'S FIRST ICO - COLLECTED US\$4.5+ MILLION IN 30 DAYS



EcoBit

HOME

ECOBIT ECOLOGY

TEAM

NEWS

ECOBIT DISTRIBUTION

CONTACT US

ECOBIT LOGIN

EcoBit Distribution (Limited Fixed EcoBit issued: 8,888,888,888)



Important Key Milestone* to unlock "Long Term Commitment" if reached before the moratorium year

HAVE NOW BEEN ADDED TO THE BANK NEGARA WATCH LIST



News

Sections

EcoBit not working with UNDP



Melati A. Jalil, Yasmin Ramlan

Updated 4 days ago · Published on 5 Jul 2017 7:13PM · 0 comments



EDITOR'S PICK

one hour ago

Dalam dunia Umno, 1MDB tetap bukan isu

By Noel Achariam, Melati A. Jalil, Diyana Ibrahim



about 2 hours ago

DAP bukan Umno, tindakan RoS boleh beri kesan sebaliknya

By The Malaysian Insight



10 hours ago

5 legal strikes in chief justice's extension, Bar Council says



11 hours ago

Centre for peace to be built in Putrajaya



VOICES

one day ago

Who is responsible for your health?

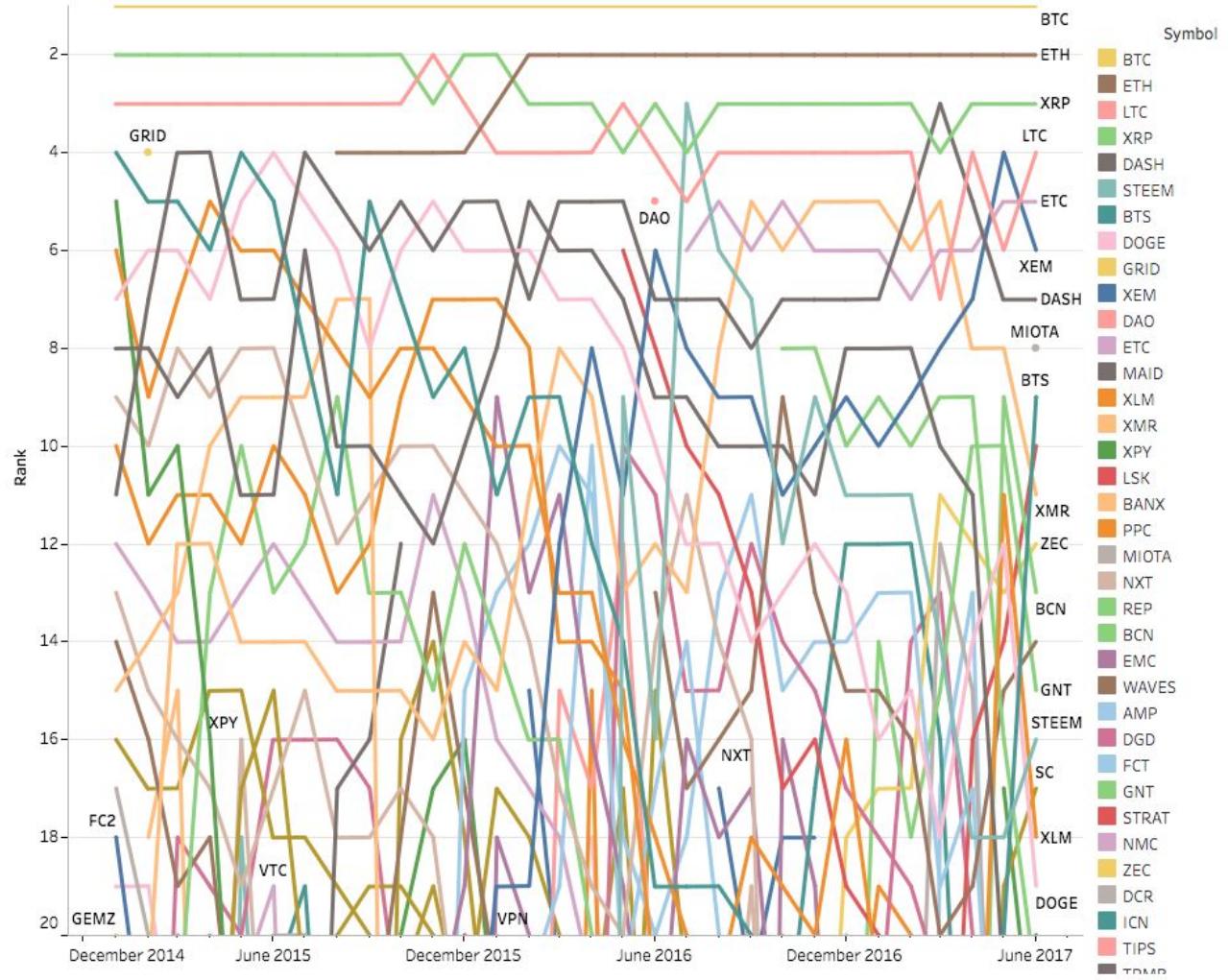
By Lim Chee Han



3 days ago

Lee family feud has

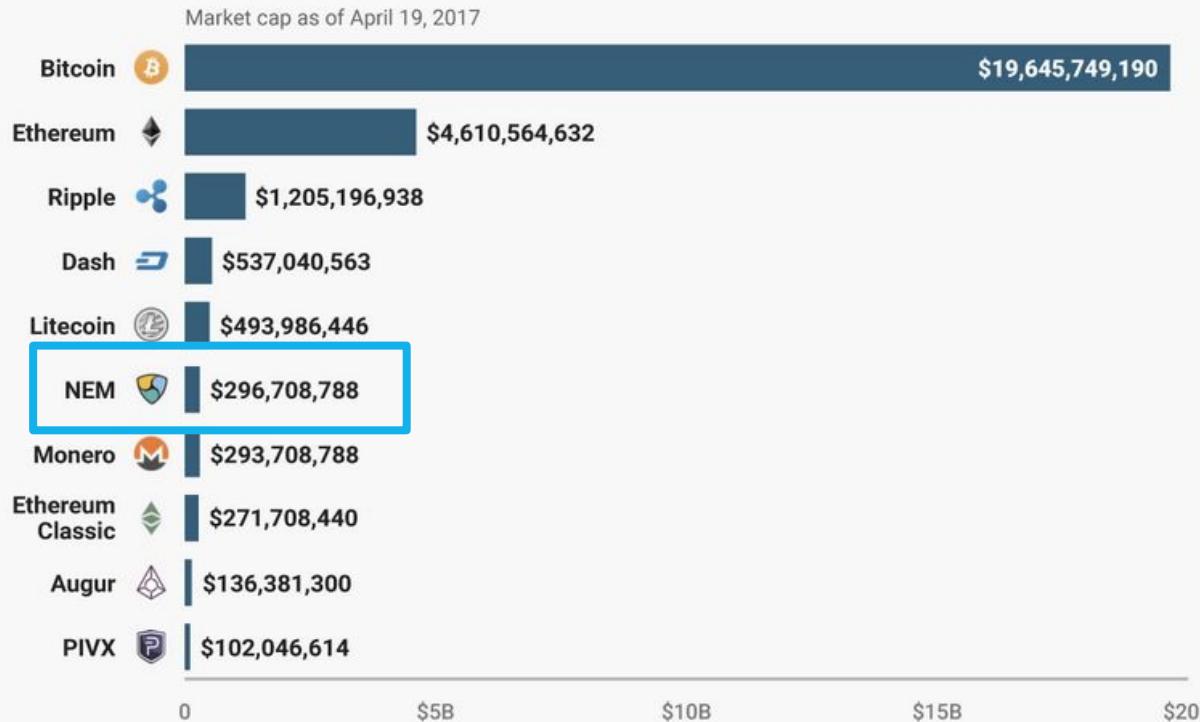




DOES MARKET CAP REPRESENT SECURITY TOO ...?

54

10 CRYPTOCURRENCIES HAVE A MARKET CAP OVER \$100M



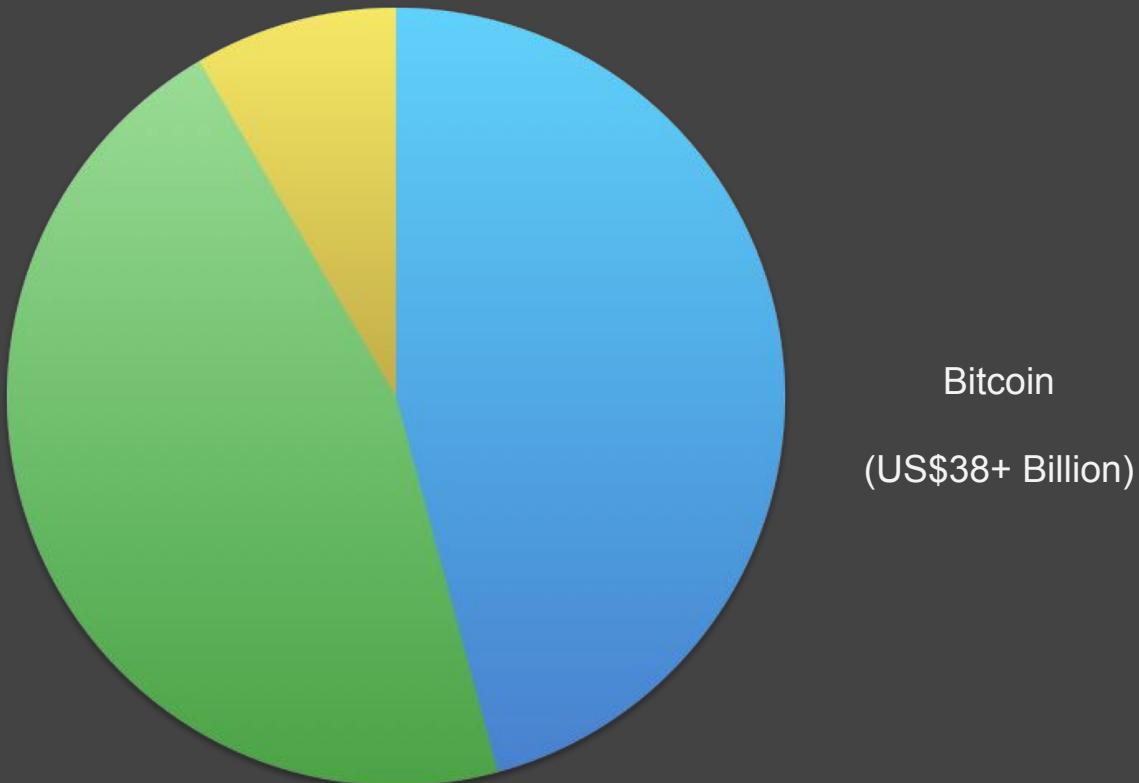
ONLY 120 DAYS AGO

Everything Else

Bitcoin



60 DAYS AGO



Other billion dollar markets:
Ethereum X 2, Ripple,
NEM, Litecoin & Dash

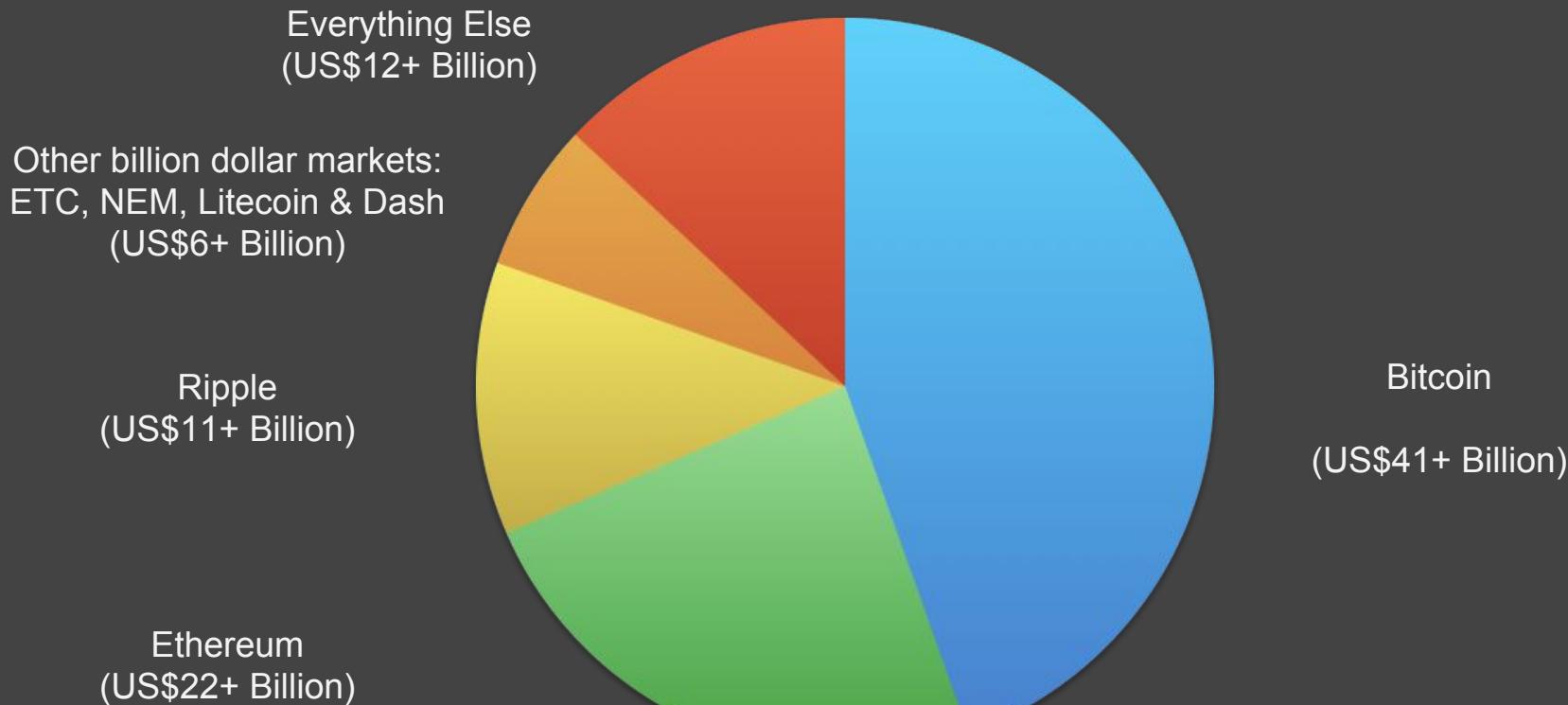
(US\$38+ Billion)

Everything Else
(US\$7+ Billion)

Bitcoin

(US\$38+ Billion)

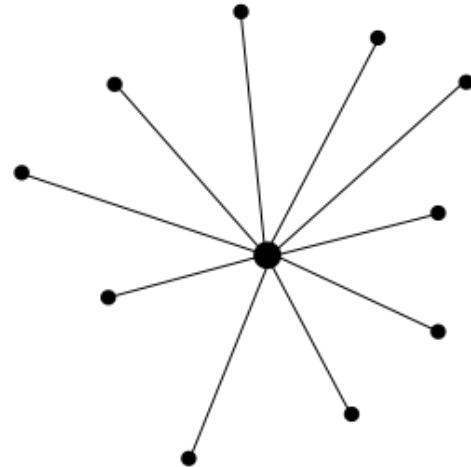
30 DAYS AGO



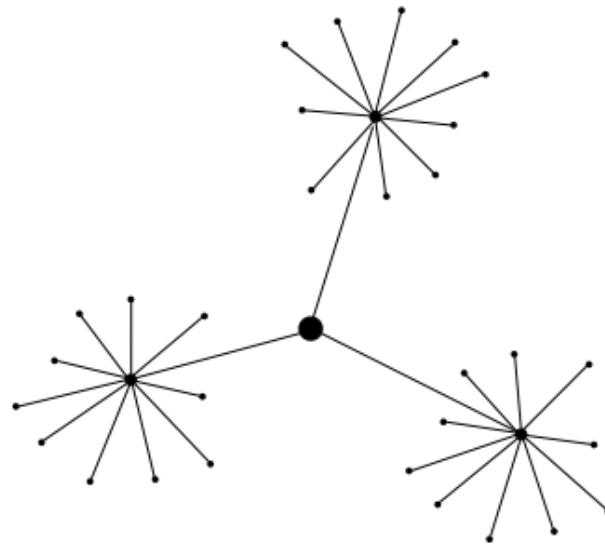
USE CASE 01

DATA STORAGE

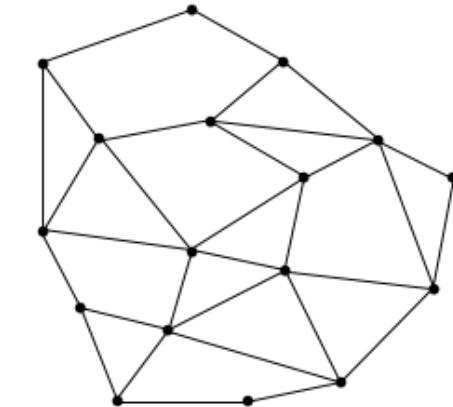
THREE PLACES TO STORE DATA - SOMETIMES ALL ARE REQUIRED



CENTRALIZATION
DATABASE



DECENTRALIZATION
THE CLOUD



DISTRIBUTION
BLOCKCHAINS

DIFFERENT WAYS DATA CAN BE STORED ON BLOCKCHAINS

- Blockchains can provide a tamper proof audit trail for structured data
 - Useful for public data (births, deaths, marriages and education)
 - Ideal for sharing data (identity, loyalty, supply chains and healthcare)
- Alternatively, blockchains can also be used to timestamp data hashes
 - Useful for large data sets (such as data lake authenticity checks)
 - Ideal for compliance (independently verify data timelines)
- Simple applications that require limited data can run autonomously without the need to pay for and (or) service ongoing hosting or server requirements
 - Useful for operating censor resistant applications

WHAT IS A DATA LAKE...?

- An intelligent repository for storing large quantities and varieties of data
- With a constant stream of data being fed to it from different sources
 - There is an expectation to preserve the original data
 - As well as the precise lineage of data transformation
- Requires unstructured data & structured data with embedded schema
- Leads to a stockpile of archived anonymous yet actionable events
- **However**, the more routes that lead to and from this lake of data, the more susceptible it becomes to presenting misleading information...

THE PROBLEMS FACED BY DATA LAKES

- **How can we trust the data coming into the lake?**

- Is it going to the right place & is it coming from who it says it is?
- If the application is independent - how to change schemas?

- **Can we trust the data does not get altered once in the lake?**

- Risks associated with centralized truth for distributed workloads

- **How can we trust the data coming out of the lake?**

- Do the right team members have the data specific privileges?

HOW OUR DISTRIBUTED PROTOCOLS CAN HELP



Our DNKey protocol could be used to manage hierarchical public key abstraction so that external input routes could be controlled remotely

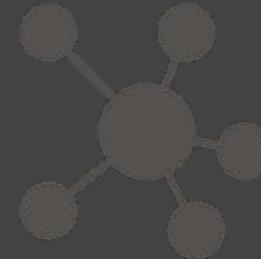


Our BlockAuth protocol could be used to manage network-wide, inter-internal hierarchical authentication and administrative privileges



Our Everstore protocol could be used to track and publicize data archives with hashed payloads and other important meta information

HOW IT ALL FITS TOGETHER



COLLECT DATA

Collect RAW schema-less data
using MongoDB - can use GridFS
for file storage

Document-Driven Design

This allows you to store and
query anything

ARCHIVE DATA

Hash batches of data prior to
archiving and publicize the meta
data to the blockchains

Relational and Replicated

Mixing some of the oldest
technologies with the latest

ANALYZE DATA

Use APIs to get data from the
archives and prove its validity by
checking the blockchains

Polyglot Persistance Prevails

Use the right database for the right
job at the right time!

EVERSTORE - THE FIRST BLOCKCHAIN POWERED DATABASE

- Everstore is the first protocol capable of storing large amounts of structured data directly on a blockchain - bypassing singular transaction limitations
- Replicates full CRUD-like functionality with schemas, indexes & relationships
- Data encoded via an Everstore instance is available for the life of the ledger



CURRENT BLOCKCHAIN DATA STORAGE ATTEMPTS

- Most well known in the ecosystem are Factom.org and Tierion.com
- Both store checksums or ‘receipts’ on a blockchain in an OP_RETURN
- Records notarized on the blockchain must fit within Bitcoin’s 38 byte limit
- References then link to the actual data which is stored somewhere off-chain
- Other solutions such as StoreJ and Filecoin are attempting to build dedicated blockchains from the ground up specifically for just storing data and files
- The concern from the technical community is that without an underlying token of value or properly incentivized network security will suffer

WHAT MAKES EVERSTORE SO SPECIAL

- Using a ‘master key’ Everstore can map transaction-outputs intelligently
- This allows Everstore to bypass the 38 byte limit with structured linking
- Data can be directly encoded on a blockchain - making it the database itself
- Each Everstore instance can hold up to 999,999,999 tables each with up-to 999,999,999 fields, with unlimited records, indexes and relationships
- Already supports over 20 field types from simple strings and numbers to more complex arrays and objects such as dates and geo-coordinates
- Private keys allow updates whilst public keys provide read-only access

USE CASE 02

IDENTITY

THE BLOCKCHAIN EMBASSY'S CHANCERY PROJECT



INCLUDES A DIGITAL BLOCKCHAIN-BASED PASSPORT



- Allows users to create and host their identity on the blockchains
- Uses endorsements and referrals to validate certain events occurred
- Allows users to login and sign-up for partnering services with 1 click

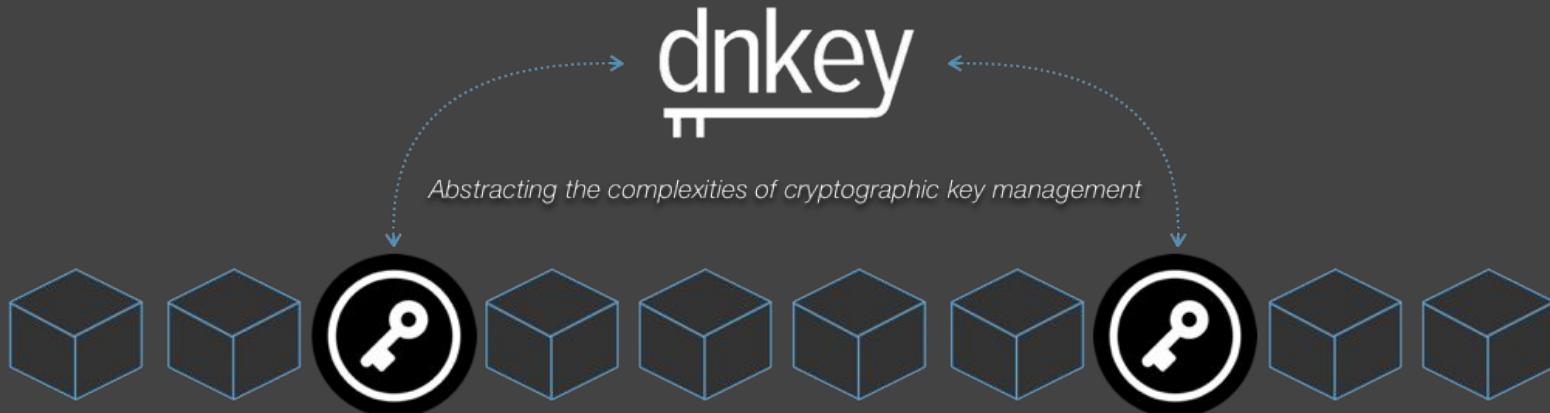
BLOCKAUTH - IDENTITY MANAGEMENT & AUTHENTICATION

- Enables intelligent account authentication via cryptographic keys
- Private keys replace passwords whilst the public keys becomes an identity
- Applications and organizations can independently authenticate credentials



SIMPLIFIED CRYPTOGRAPHIC IDENTITIES WITH DNKEY

- Scalable key logistics across multiple platforms, applications, and processes
- Enables DNS style abstraction for key retirement, replacement, and rotation
- Decodes memorable, trustworthy domain names to public cryptographic keys

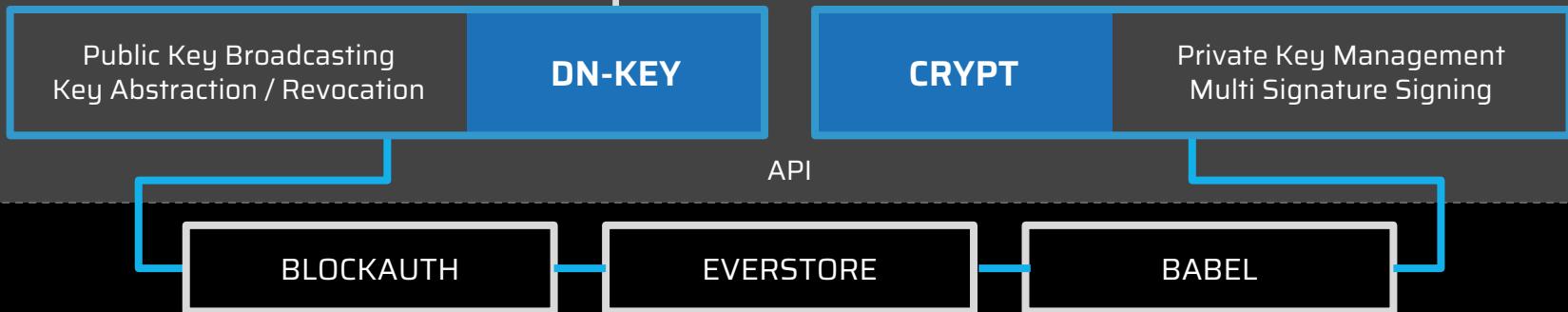


HOW WE ABSTRACT THE COMPLEXITIES OF KEY MANAGEMENT

- Transform wallet addresses from complicated public keys such as:
`13aaehx6p4QrTHMvQUZy3dTEevXr4Wwrap` into something much more
memorable and manageable - such as `mark.neuroware.io`
- Services configured to read DNKeys (rather than direct public keys)
can programmatically control keys remotely
- Ensures organizations have total control over key management and
are not locked-in to any one vendor or blockchain
- High-level domains can be used as a way to control your distributed
on-chain presence across multiple applications

HOW IT ALL FITS TOGETHER

Applications



Blockchains
& Distributed
Protocols





neuroware

THANK YOU FOR YOUR TIME

please email us for more information - founders@neuroware.io