

# DigixGlobal

Microsoft Startup Days @BASH

31 May 2017

Shaun Djie

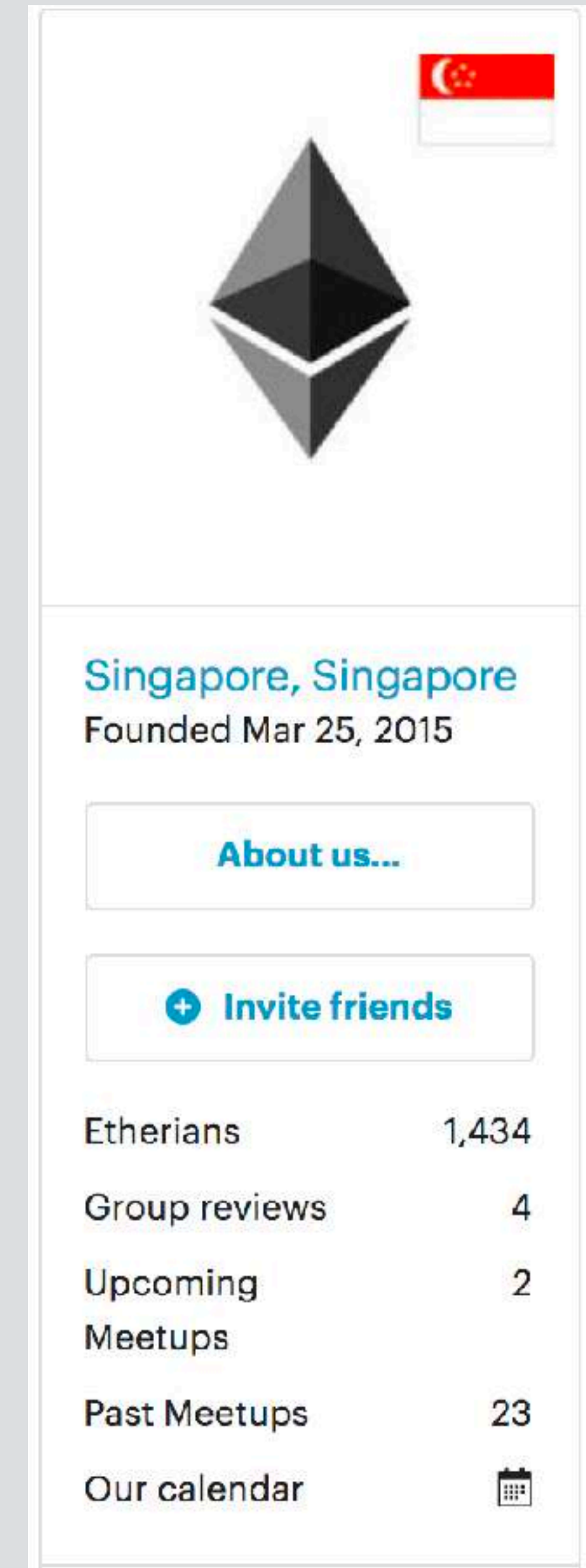
Shaun Djie,


- Co-founder and CCO of DigixGlobal
- Founder of Ethereum Meetup Group, largest in Asia, 4th Globally


(<https://www.meetup.com/Ethereum-Singapore/>)

1st June: Indorse & Status.im Keynote

5th June: INFURA + MetaMask from ConsenSys








**Singapore, Singapore**  
Founded Mar 25, 2015

[About us...](#)

[+ Invite friends](#)

Etherians	1,434
Group reviews	4
Upcoming Meetups	2
Past Meetups	23
Our calendar	

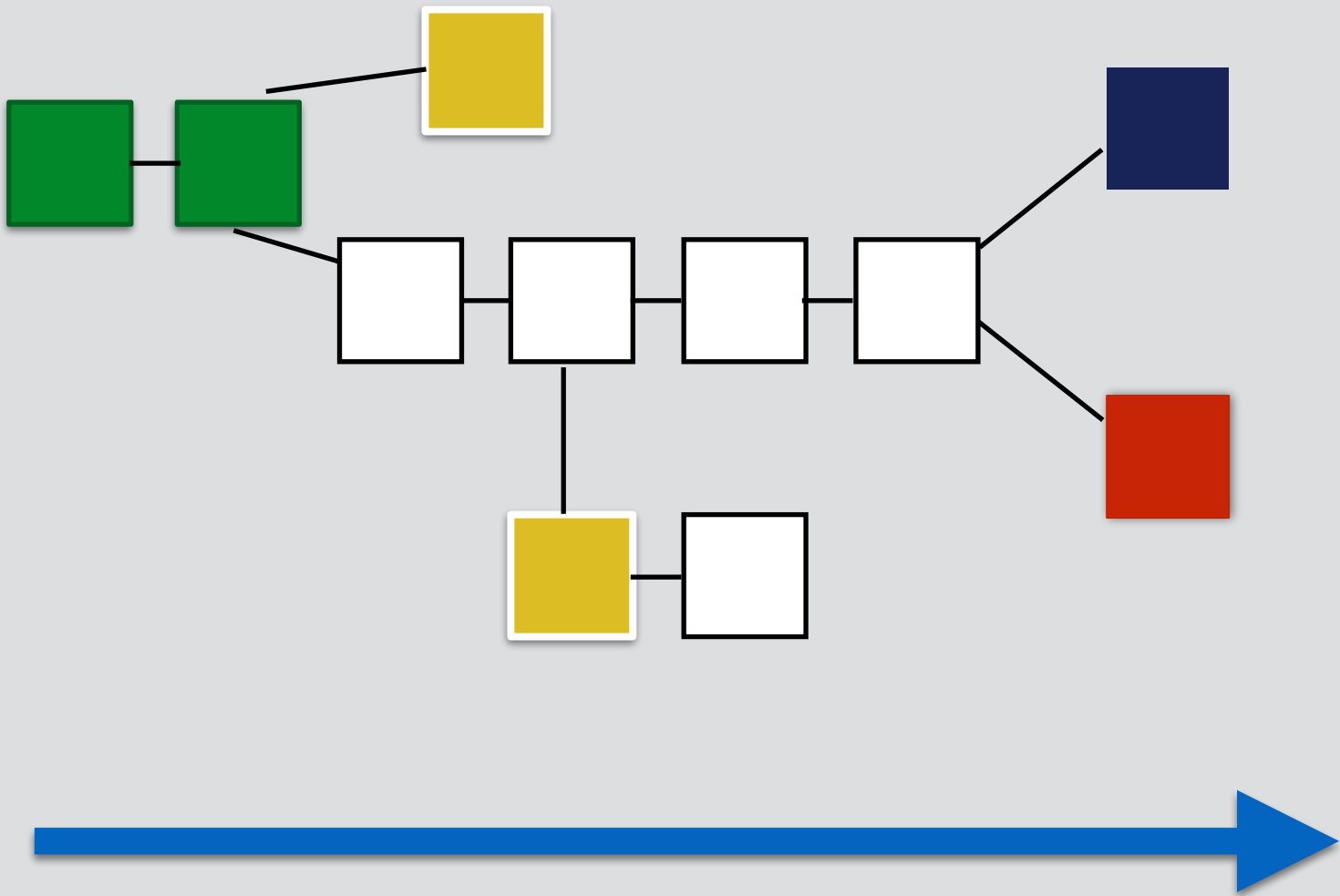


- Asset tokenization platform on the Ethereum blockchain using the *Proof of Asset protocol*
- Turn physical gold bullion into spendable Digital Currencies, DGX
- Creation of first ever crowdfunded entity to govern and support the company's growth, *DigixDAO, raised US\$5.5m of Ether, as of today stands at US\$101m*

## Physical Assets



Supply Chain Process



Ethereum Blockchain

## Digital Tokens



Tokenized into  
Ethereum-based  
Tokens





**THE SAFE HOUSE**  
Your Trusted Depository

**Custodial Vault**  
The Safe House; physical custodian of Gold bullion



**BUREAU VERITAS**

**Independent Auditors**  
Bureau Veritas provides quarterly audits conducts a full audit of assets at TSH



**Silver Bullion**

**Asset Vendor**  
Value Max (SGX: T6I), Silver Bullion provider of LBMA Gold bars

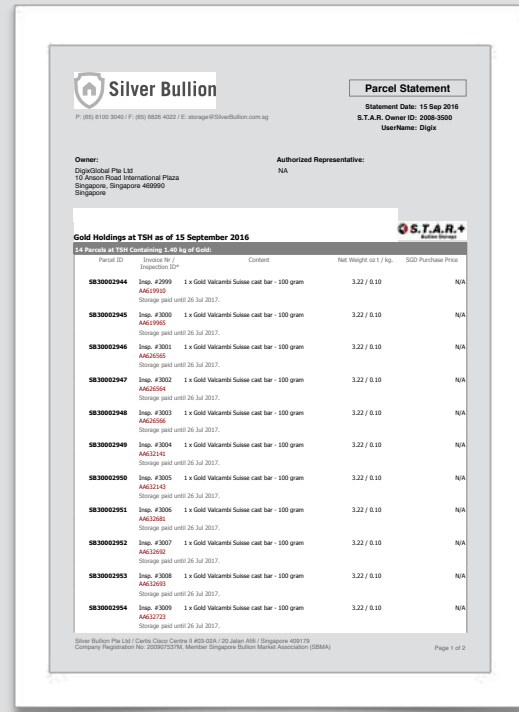


**Digix Global**  
Contract Creation  
Asset Management  
Customer Support



**Ethereum Blockchain**  
Immutable record and automated verification proof

# Digix core product: Digital Gold Tokens (DGX)



Custodial Vault



+



Independent Auditor



+



Asset Vendor



=

100 Grams



=

- Inter-Planetary File System (IPFS) is a decentralized hypermedia storage

- Digix manages the process of uploading the receipts, taking the hash and convert them into Digital Gold Tokens, DGX



100 DGX

# Why is there a need for DGX?



- Stablecoin of crypto-currencies
- Volatility amongst other crypto-currencies
- Safe-haven asset class for hedging
- Tangible value proposition ~ Gold price pegging

#	Name	Market Cap	Price	Circulating Supply	Volume (24h)	% Change (24h)
1	Bitcoin	\$36,906,900,822	\$2255.73	16,361,400 BTC	\$1,295,920,000	0.19%
2	Ethereum	\$18,839,533,954	\$204.63	92,064,984 ETH	\$1,264,800,000	9.33%
3	Ripple	\$8,457,234,052	\$0.221108	38,249,335,400 XRP *	\$92,779,500	-7.40%
4	NEM	\$1,807,524,000	\$0.200836	8,999,999,999 XEM *	\$12,716,400	-3.99%
5	Ethereum Classic	\$1,594,549,534	\$17.31	92,126,294 ETC	\$130,787,000	3.59%
6	Litecoin	\$1,280,703,364	\$24.95	51,336,557 LTC	\$233,652,000	0.88%
7	Dash	\$891,921,340	\$121.72	7,327,528 DASH	\$38,917,500	4.78%
8	Monero	\$632,983,155	\$43.51	14,547,257 XMR	\$25,227,700	0.51%
9	Stratis	\$510,116,803	\$5.18	98,405,008 STRAT *	\$22,896,900	49.29%
10	Bytecoin	\$458,417,725	\$0.002506	182,957,995,824 BCN	\$5,542,590	2.86%
11	Golem	\$355,137,091	\$0.430536	824,872,000 GNT *	\$16,481,200	-7.10%
12	Zcash	\$339,313,437	\$239.64	1,415,906 ZEC	\$36,510,900	16.30%
21	BitShares	\$170,936,756	\$0.065692	2,602,090,000 BTS *	\$13,029,600	2.15%
22	MaidSafeCoin	\$165,674,460	\$0.366089	452,552,412 MAID *	\$1,773,810	-1.13%
23	DigixDAO	\$156,160,000	\$78.08	2,000,000 DGD *	\$1,157,230	5.55%
24	DigiByte	\$155,190,480	\$0.019143	8,107,031,908 DGB	\$33,927,700	29.23%



- Ethereum is a decentralized platform that runs Smart Contracts
- Proof of Work Blockchain with a Virtual Machine (EVM)
- Smart Contracts are self-enforcing applications that run as programmed without any possibility of downtime, censorship, fraud or third party interference.
- Computations require gas (fractional Ether)
- Ethereum is by far, the most interoperable, closest to public deployment for enterprise-grade software blockchain solution





Microsoft Visio Studio Platform directly supports Solidity

Enterprise for Ethereum Alliance focusing on development of enterprise grade softwares for firms like Microsoft, J.P. Morgan

Digix joined the EEA on 22 May as one of the first 86 companies of the entire list



# Digix open-sourced Project: Spectrum



Keystores Networks Tokens Signer Digix Assets

### Networks

Configure your Connection + Create

- Kovan** Kovan PoA Testnet ✓ Connected  
https://kovan.infura.io/
- Ethereum** Official Ethereum Mainnet ✓ Connected  
https://mainnet.infura.io
- Ropsten Testnet** Ethereum Public Testnet  
https://ropsten.infura.io

Light wallet suite of solutions

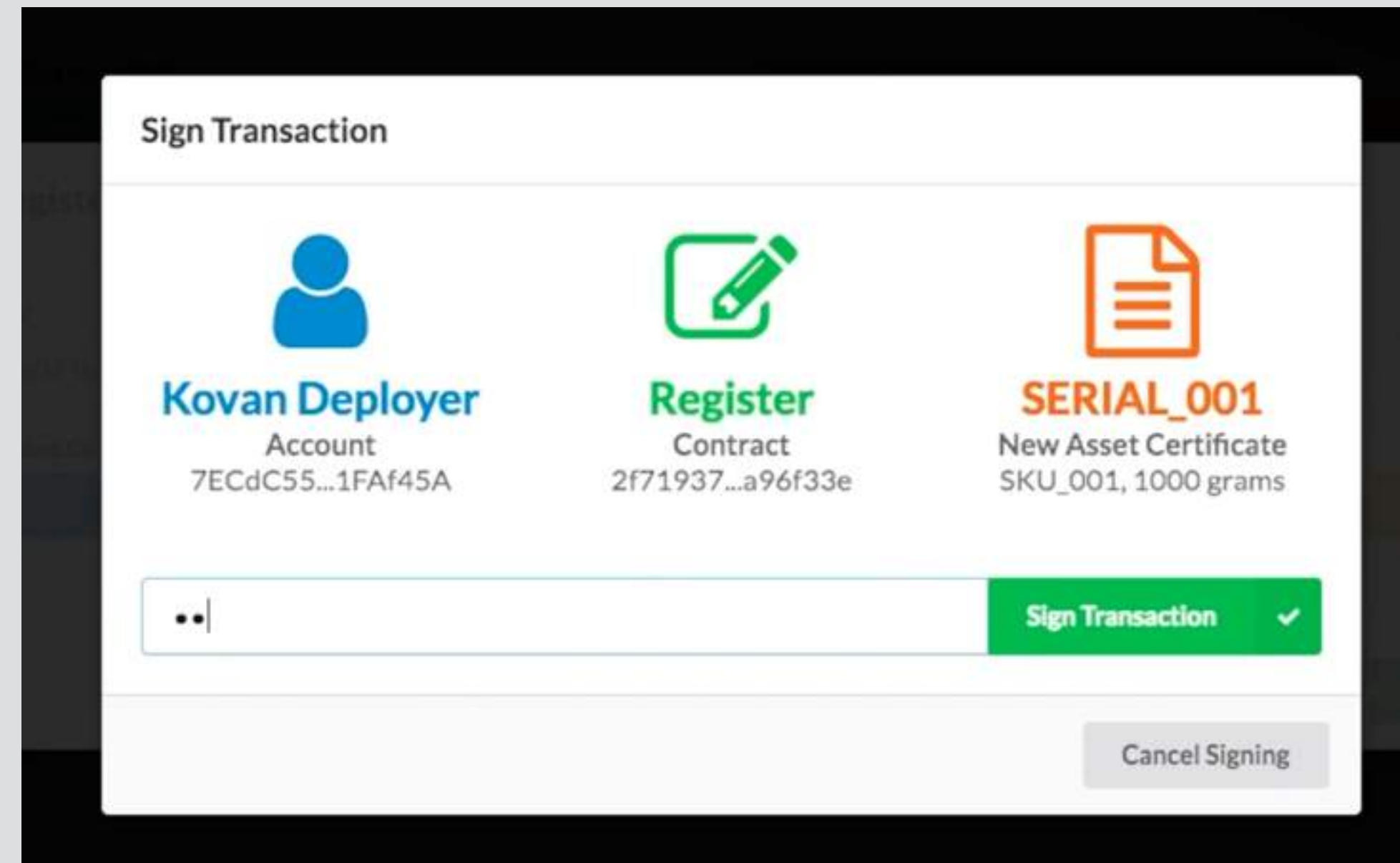
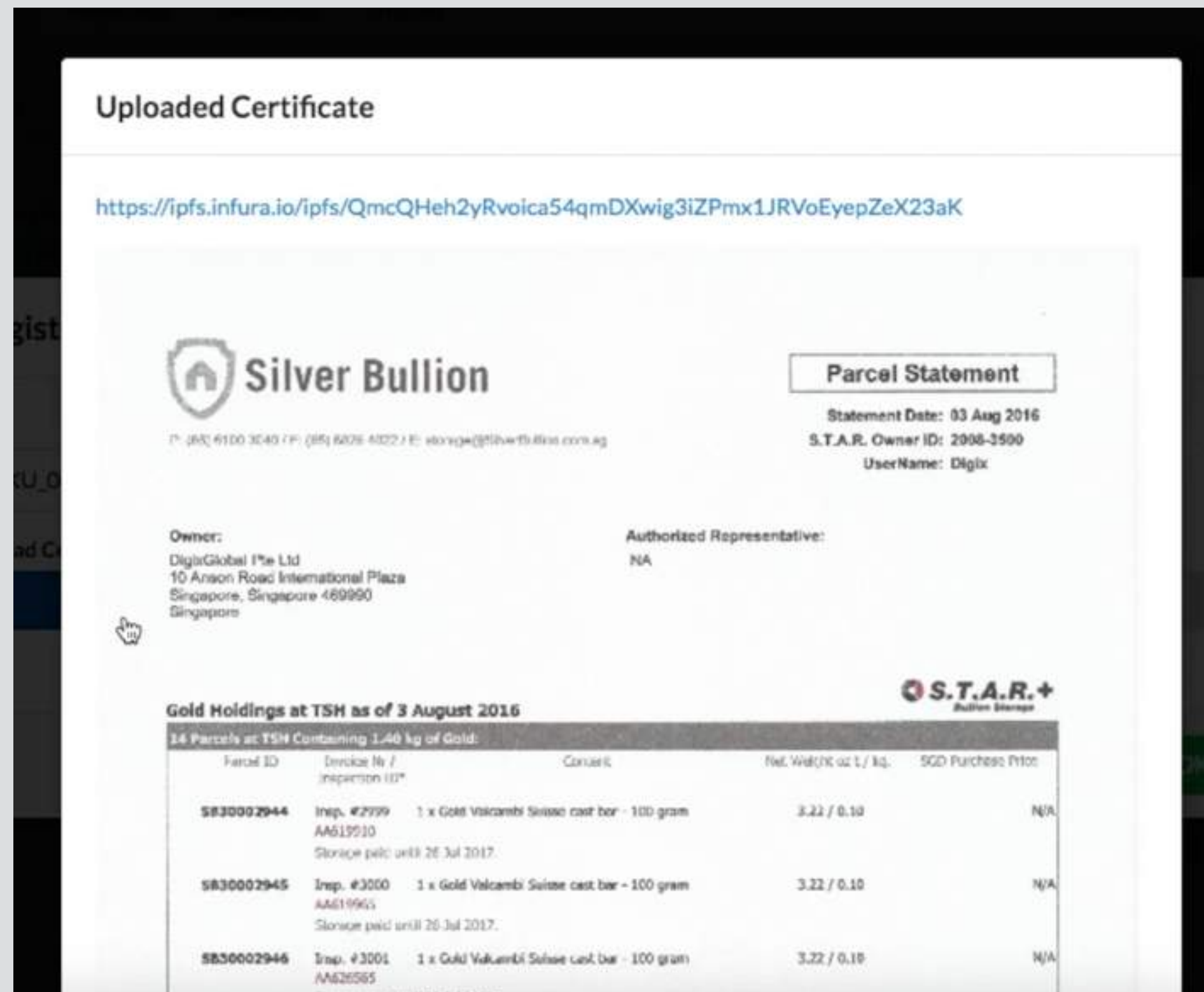
Dapplet Store, access viewing of different token interfaces, blockchain networks

Keystores Networks Tokens Signer Digix Assets

### Tokens

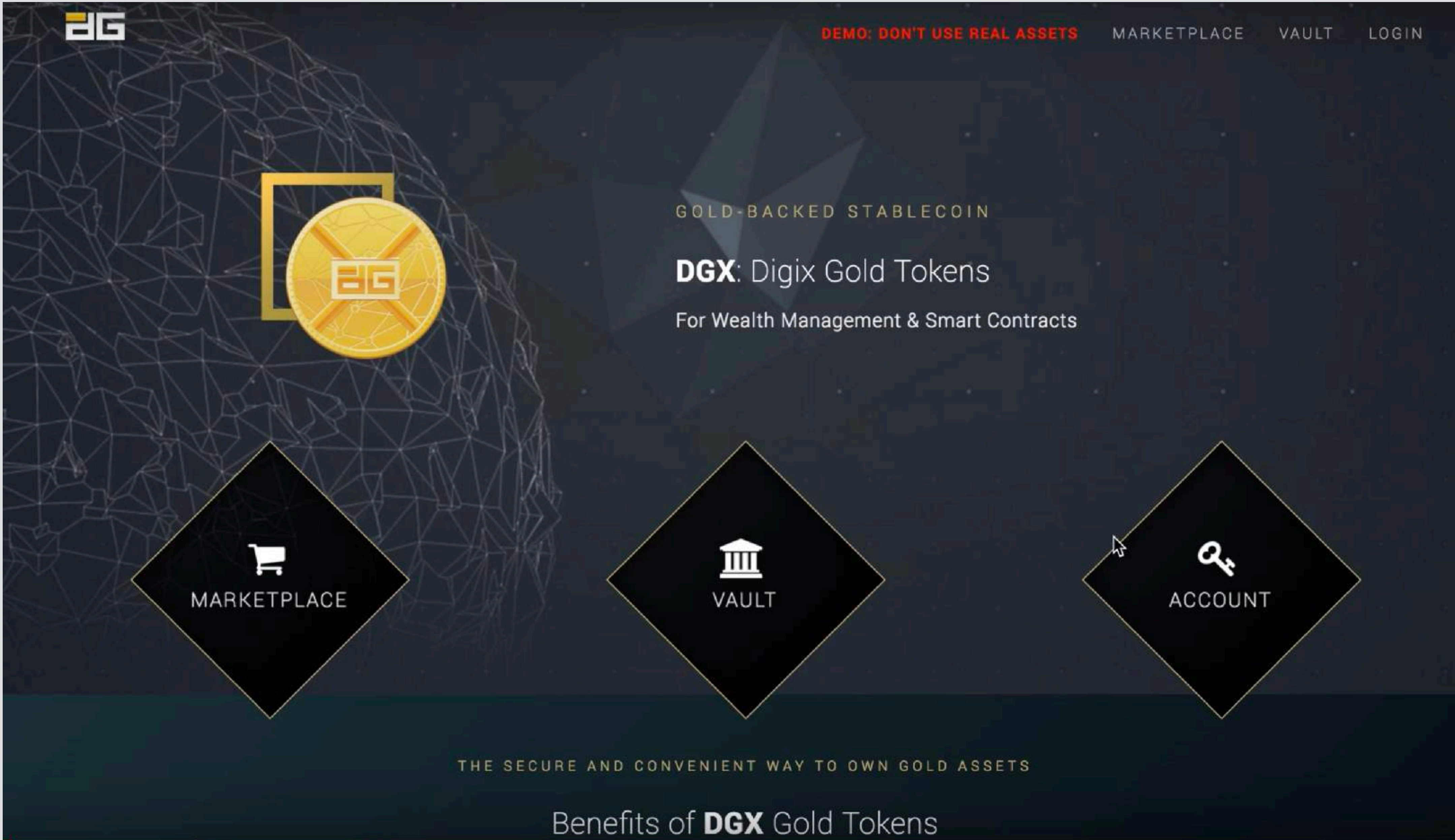
Configure Available Token Assets + Create

<b>Arcade City Tokens</b> <span>ARC</span> 0xAc709FcB44a43c35F0DA4e3163b117A17F3770f5	Ethereum
<b>Augur Rep</b> <span>REP</span> 0x48c80F1f4D53D5951e5D5438B54Cba84f29F32a5	Ethereum
<b>BeerCoin</b> <span></span> 0x74c1e4b8cae59269ec1d85d3d4f324396048f4ac	Ethereum
<b>BlockCDN</b> <span>BCDN</span> 0x1e797Ce986C3CFF4472F7D38d5C4aba55DfEFE40	Ethereum
<b>DGX Kovan</b> <span>DGX-test</span> 0x7a1767df4bad56ba284ac2a07b55d0825abab91c	Kovan
<b>DigixDAO Proposer Badges</b> <span>DGD-badge</span> 0x54bda709fed875224eae569bb6817d96ef7ed9ad	Ethereum
<b>DigixDAO Tokens</b> <span>DGD</span> 0xe0b7927c4af23765cb51314a0e0521a9645f0e2a	Ethereum



Signing transactions via own private key

Viewing of IPFS document such as vault receipt





DEMO: DON'T USE REAL ASSETS

MARKETPLACE

VAULT

LOGIN



SECURED BY



TRADEABLE GOLD-BACKED CRYPTOCURRENCY

## Buy DGX Tokens

Every DGX token represents 1 gram of segregated, unallocated gold from LBMA-approved refineries held in Digix's custodial vault via the Proof of Asset Protocol. All gold comes from 99.99% LBMA-Approved refineries and are divisible up to 4 decimal placings.

DGX tokens follow the ERC 20 Token Standard on Ethereum, can be used and integrated along with any DApps in the Ethereum ecosystem. Users can also recast their DGX tokens with Digix into physical gold bullion for redemption (minimum 100g bars are available).

PURCHASE DGX

1 DGX = 1 GRAM = ¥12,121.21 JAPANESE YEN

### Upload Identification Documents

To verify the details you have provided, please upload supporting documents.

**Photo ID \*** **Proof of Address \***

Select ID Type  Select ID Type

Click or Drag and Drop your file here to upload.

Click or Drag and Drop your file here to upload.

### Current Residence

We need to make sure you're currently residing in a country we're allowed to serve.  
Later on we will ask for proof of this address.

**Country of Residence \***

Bahamas

**Address \***

Unit/Block/House Number  Street Name

City  State  ZIP/Post Code

### New Purchase

## ID VERIFICATION REQUIRED

You need to have completed the ID Verification process to make a purchase. Please confirm your ID first, then try again.

SEARCH FOR ASSET ADDRESS

Search for Asset Address or ID

OR

BROWSE RECENT TRANSACTIONS

**ASSET ACTIVITY**  
Realtime Transparent Ownership

- Ownership Transfer** in 7 days - Block 2853678  
e85f...f2f8 VCC999F100G  
6bda...a7b5 → af55...a87a
- Ownership Transfer** 2 months ago - Block 2436865  
ea93...70ff VCC999F100G  
944d...9677 → f914...dde9

**TOKEN TRANSFERS**  
Powered by Etherscan

- Transfer 4007 DGX** in 7 days - Block 2853678  
6bda...a7b5 → af55...a87a
- Transfer 6387 DGX** 2 months ago - Block 2436865  
944d...9677 → f914...dde9
- Transfer 1174 DGX** 6 months ago - Block 1575042

Powered by [etherscan.io](https://etherscan.io), linked to the block explorer to broadcast all transactions related to Digix products

SPECS	DOCUMENTATION
Contract Address	123
Owner	2222f8b60dbef432eb087b4a8071b0d0b420b953
Serial Number	1663502
Product SKU	ZAUFS00476
Weight	100g
Status	<span style="background-color: green; color: white; padding: 2px;">Minted</span>
Storage Fees Due	\$122.32
Vendor	ValueMax Pte Ltd
Custodian	Malca-Amit
Last Audit	6/15/2016, 1:10:47 PM
Next Audit Deadline	6/15/2016, 9:30:47 PM
Created	6/15/2016, 1:05:47 PM

SPECS	DOCUMENTATION
<p>213 Bedok North Street 1 #01-121, Singapore 460213 Tel: +65 6448 6886 Fax: +65 6441 7195</p>	<p>The Singapore Freeport, 32 Changi North Crescent, Singapore 499641 Tel: +65 6587 9135 Fax: +65 6214 9184</p>
<p><b>GOLD BULLION PURCHASE RECEIPT</b></p> <p>Item: Cast Gold Bar SKU: VCC999F100G Serial #: AA632681 Asset ID: E16D27D95907153B9D6102B6A88AE3576DA7ACE6</p> <p>This document acknowledges that ValueMax has sold and delivered the above items to DigixGlobal Private Limited on the customer's behalf.</p> <p>Prepared By: </p> <p>Wilson Tan Tel: +65 6448 6886   Email: wilton@valuemax.com.sg</p>	<p><b>GOLD BULLION STORAGE RECEIPT</b></p> <p>Weight: 100 grams Serial #: AA632681 Asset ID: E16D27D95907153B9D6102B6A88AE3576DA7ACE6</p> <p>This document acknowledges that Malca-Amit has received the above item from DigixGlobal Private Limited for custodial storage. This item may only be withdrawn with a valid withdrawal authorization.</p> <p>Prepared By: </p> <p>Justin Khoo Tel: +65 6587 9135   Email: jkhoo@malca-amit.com.sg</p>
<p>DigixGlobal Private Limited 10 Anson Road International Plaza #05-17 Singapore 079903</p> <p><b>VENDOR DOCUMENT</b></p>	<p>DigixGlobal Private Limited 10 Anson Road International Plaza #05-17 Singapore 079903</p> <p><b>CUSTODIAN DOCUMENT</b></p>





DEMO: DON'T USE REAL ASSETS

MARKETPLACE

VAULT

ACCOUNT ▾

DASHBOARD

ASSETS

## DIGIX ACCOUNT

Email test@test.com

Deposit Address bf07166a7da1f32e7e5865ab6aa0eac2110a1cb7

Withdraw Address ef07166a7da1f32e7e5865ab6aa0eac2110a1cb7

UPDATE

Account Level **Full KYC** Update Completed 31/01/2016

Two Factor Authentication **Disabled** Enable 2FA

SIGN OUT

CHANGE PASSWORD

## RECENT ACTIVITY

Ownership Transfer in 7 days - Block 2853678

e85f...f2f8 VCC999F100G

6bda...a7b5 → af55...a87a

Ownership Transfer 2 months ago - Block 2436865

ea93...70ff VCC999F100G

944d...9677 → f914...dde9

Ownership Transfer 6 months ago - Block 1575042

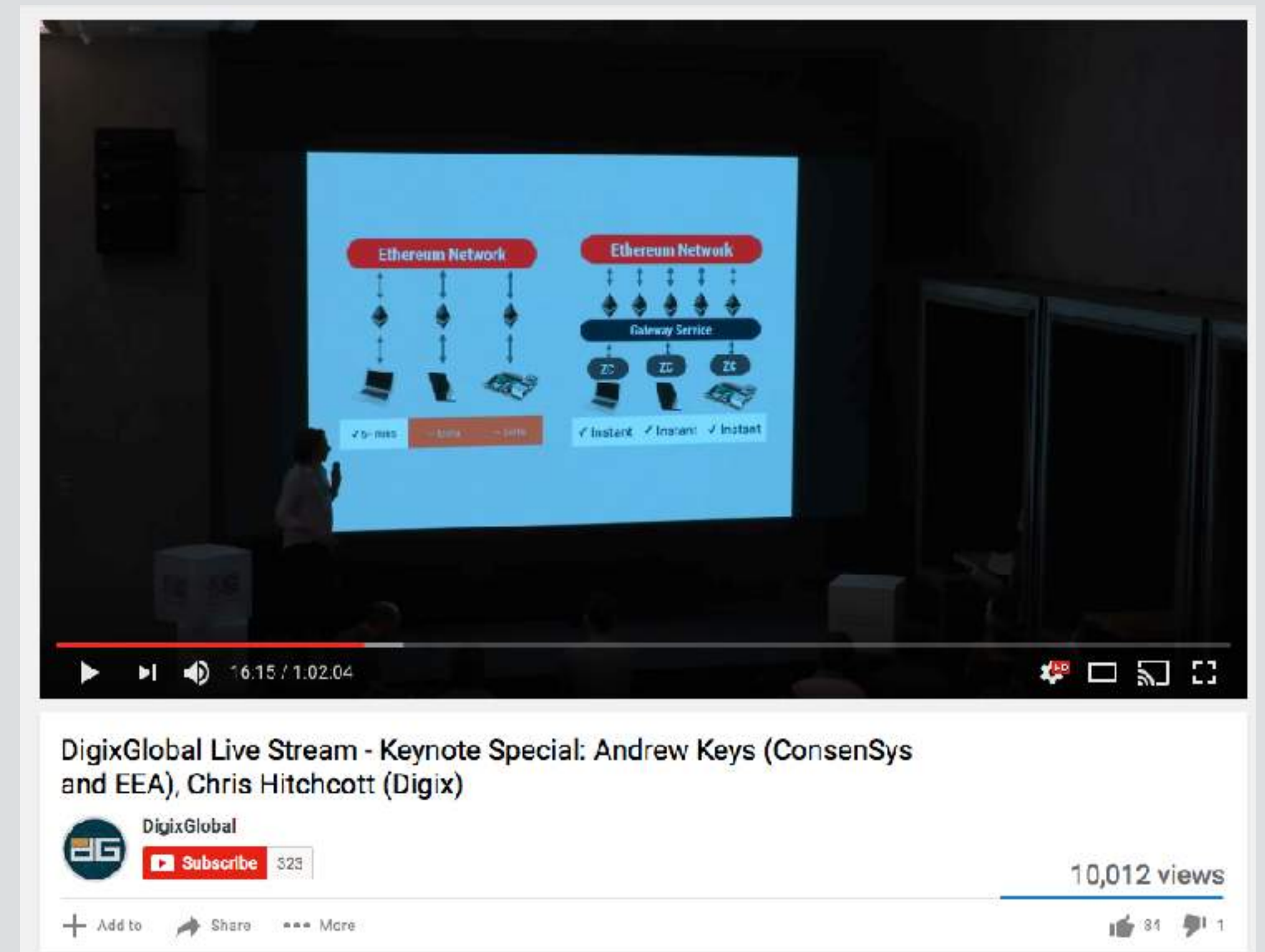
d0ab...965b VCC999F100G

47a4...0d99 → b11b...e842

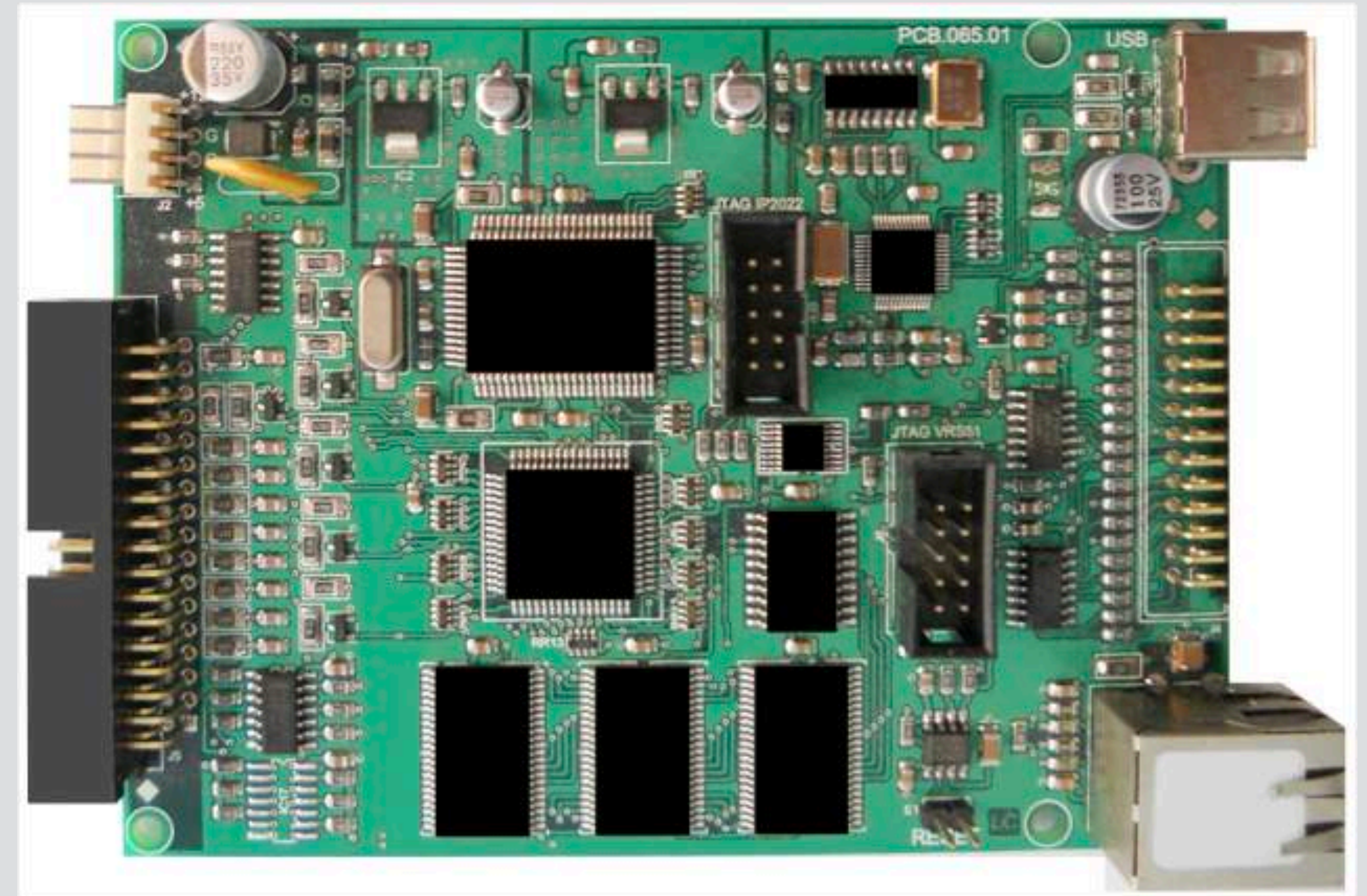
Pioneering the *Contract Access Control Panel* as spoke by my

- 1) CTO, Anthony Eufemio at Ethereum DevCon2 Shanghai and recently at Blockchain @ Berkeley
- 2) Core Dev Chris Hitchcott's talk at SGInnovate

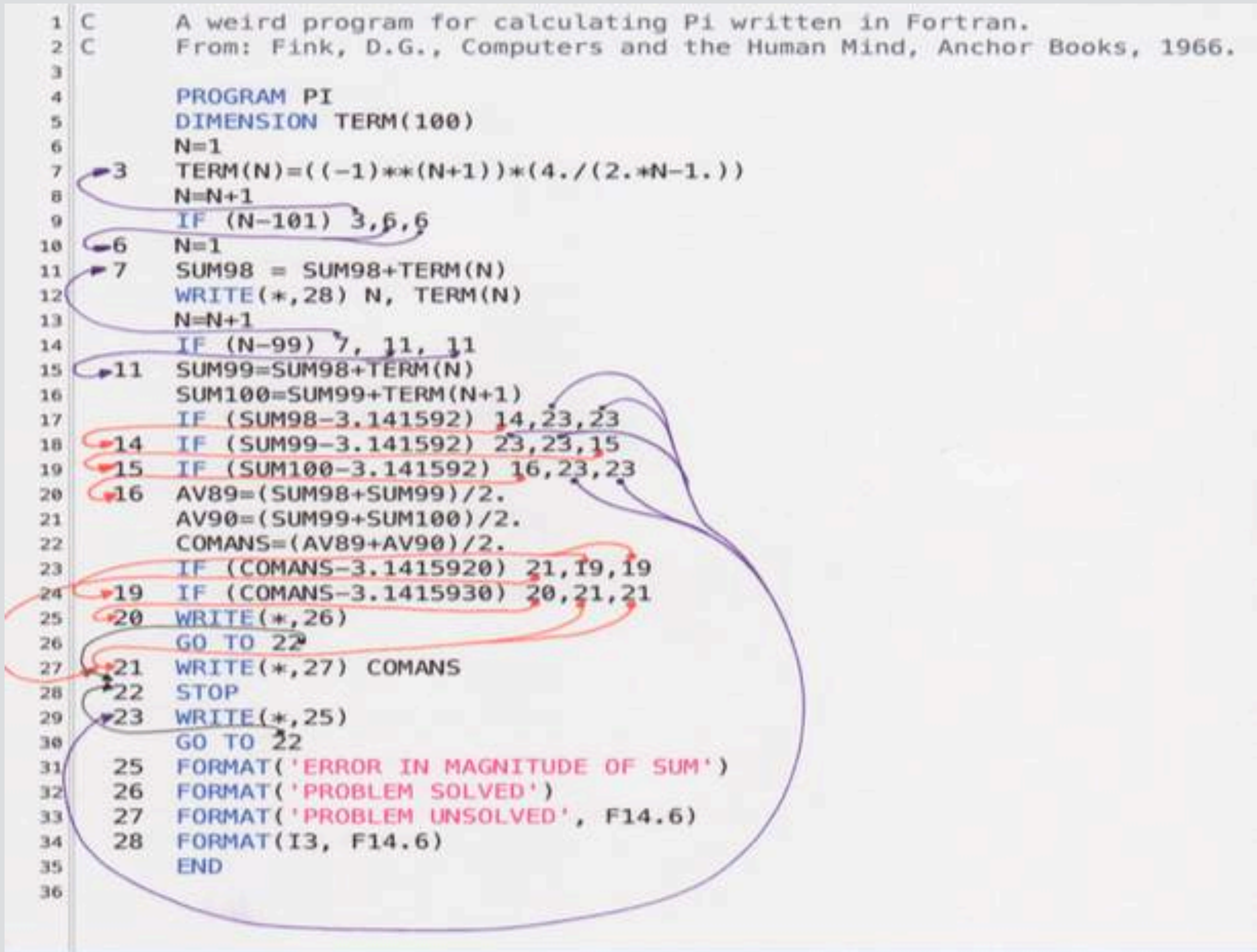
**Bold Statement: Good software leads to good security**



Essentially, Ethereum Smart Contract are “Software once deployed, turns into hardware” !



```
1 C   A weird program for calculating Pi written in Fortran.
2 C   From: Fink, D.G., Computers and the Human Mind, Anchor Books, 1966.
3
4     PROGRAM PI
5     DIMENSION TERM(100)
6     N=1
7     3 TERM(N)=((-1)**(N+1))*(4./(2.*N-1.))
8     N=N+1
9     IF (N-101) 3,6,6
10    6 N=1
11    7 SUM98 = SUM98+TERM(N)
12    WRITE(*,28) N, TERM(N)
13    N=N+1
14    IF (N-99) 7, 11, 11
15    11 SUM99=SUM98+TERM(N)
16    SUM100=SUM99+TERM(N+1)
17    IF (SUM98-3.141592) 14,23,23
18    14 IF (SUM99-3.141592) 23,23,15
19    15 IF (SUM100-3.141592) 16,23,23
20    16 AV89=(SUM98+SUM99)/2.
21    AV90=(SUM99+SUM100)/2.
22    COMANS=(AV89+AV90)/2.
23    IF (COMANS-3.1415920) 21,19,19
24    19 IF (COMANS-3.1415930) 20,21,21
25    20 WRITE(*,26)
26    GO TO 22
27    21 WRITE(*,27) COMANS
28    STOP
29    23 WRITE(*,25)
30    GO TO 22
31    25 FORMAT('ERROR IN MAGNITUDE OF SUM')
32    26 FORMAT('PROBLEM SOLVED')
33    27 FORMAT('PROBLEM UNSOLVED', F14.6)
34    28 FORMAT(I3, F14.6)
35    END
36
```



Spaghetti code line

Difficulty in modularizing for future deployment

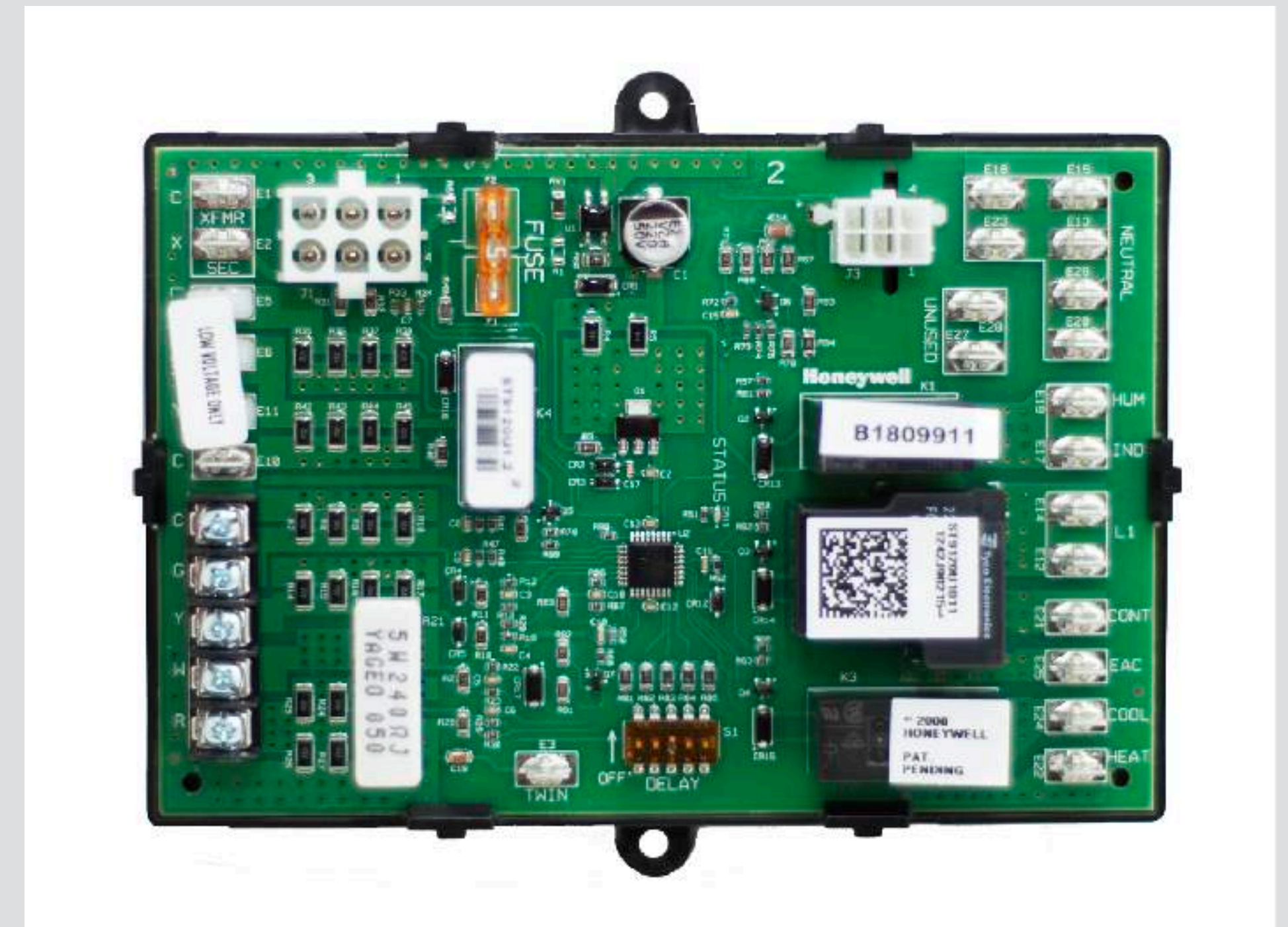
Allows for increased complexity

- More organized = more room for complex contracts

Susceptible to attack vectors

Introducing, the Interface-Controller Storage (ICS Pattern)

- Small units of testable codes → Encourages reusability
- Modular, importable codebase
- Upgradeable modular components
  - Case in point: Update on-chain with voting, means DigixDAO is upgradeable on the fly

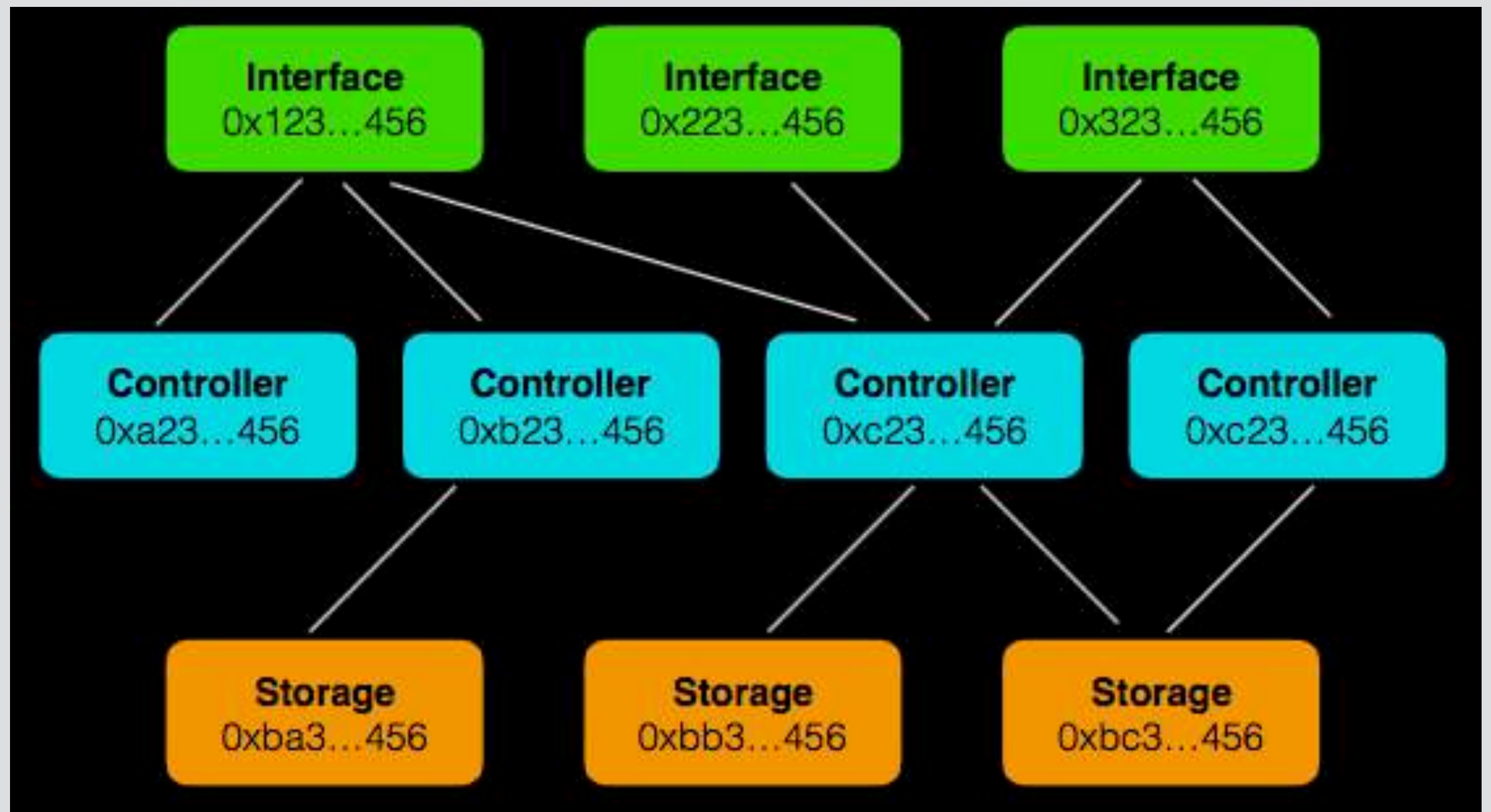


Interface Contracts are contracts that can be directly called by an end-user or external contracts.

**This is the main entry point, where vendors interact, by calling a function, e.g. `balanceof()`**

Controller contracts are called from Interface Contracts or other Controller Contracts that performs a set of tasks based on input that follows the logic, math behind the Contracts

Storage contracts store data such as balance, and when the last demurrage fee was paid etc etc, that has no logic or computation functions

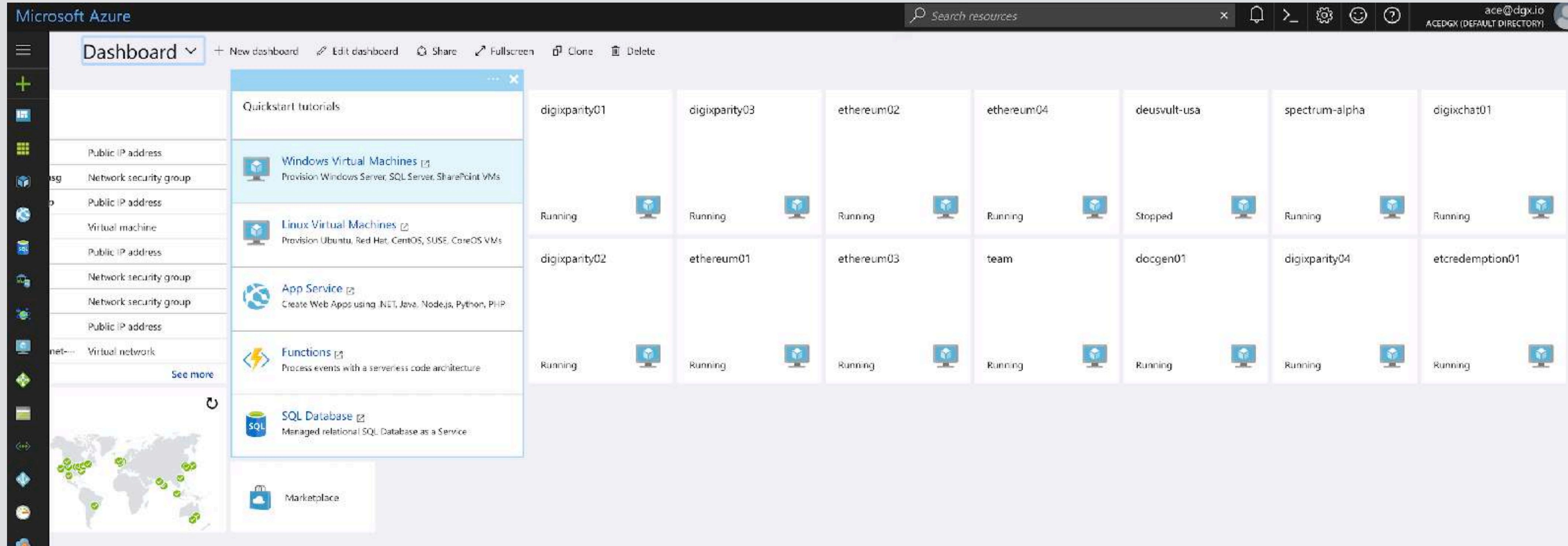


Analogy of an equation

$$\text{---} x + \text{---} y + \text{---} z = \text{---}$$

SC                      CC                      IC

# How does Microsoft Azure helps Digix?



Company DigixGlobal Pte Ltd  
Start Date 23 Feb 2017  
End Date 22 Feb 2019

## Your Sponsored Account Balance Today

Sponsorship Amount \$120,000  
Used\* ([show details](#)) \$9,312  
Remaining Balance \$110,688

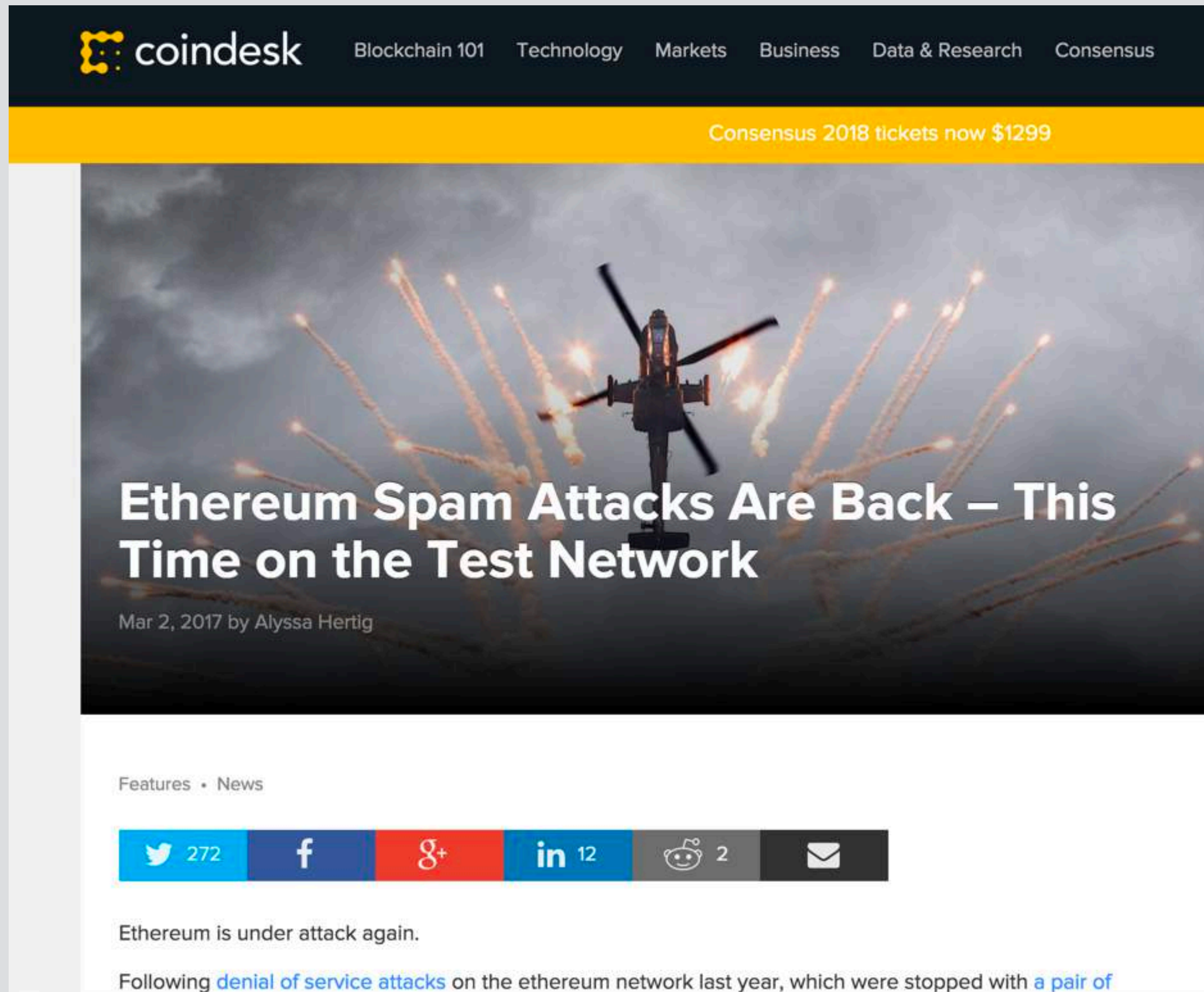
\*Based on usage through 29 May 2017

- Heavy Ethereum Blockchain Nodes being used
- Dedicated database servers
- Chat servers, *ETC redemption activity*

# Microsoft Azure and the grand initiative of Kovan







The screenshot shows the Coindesk website header with navigation links: Blockchain 101, Technology, Markets, Business, Data & Research, and Consensus. A yellow banner below the header reads "Consensus 2018 tickets now \$1299". The main article features a background image of a helicopter at night with many bright orange streaks radiating from it, resembling a denial-of-service attack. The article title is "Ethereum Spam Attacks Are Back – This Time on the Test Network", dated "Mar 2, 2017 by Alyssa Hertig". Below the title is a social sharing bar with icons for Twitter (272), Facebook, Google+, LinkedIn (12), Reddit (2), and Email. The article text begins with "Ethereum is under attack again." and continues with "Following [denial of service attacks](#) on the ethereum network last year, which were stopped with [a pair of](#)".

Ropsten, the second release of the public testnet by Ethereum (previously Morden) was under a DoS attack on 24 February 2017

Resulted in the downtime of Ropsten

Affected Ethereum Developers worldwide

# Birth of the self-initiated Testnet, Kovan



DIGIX GLOBAL



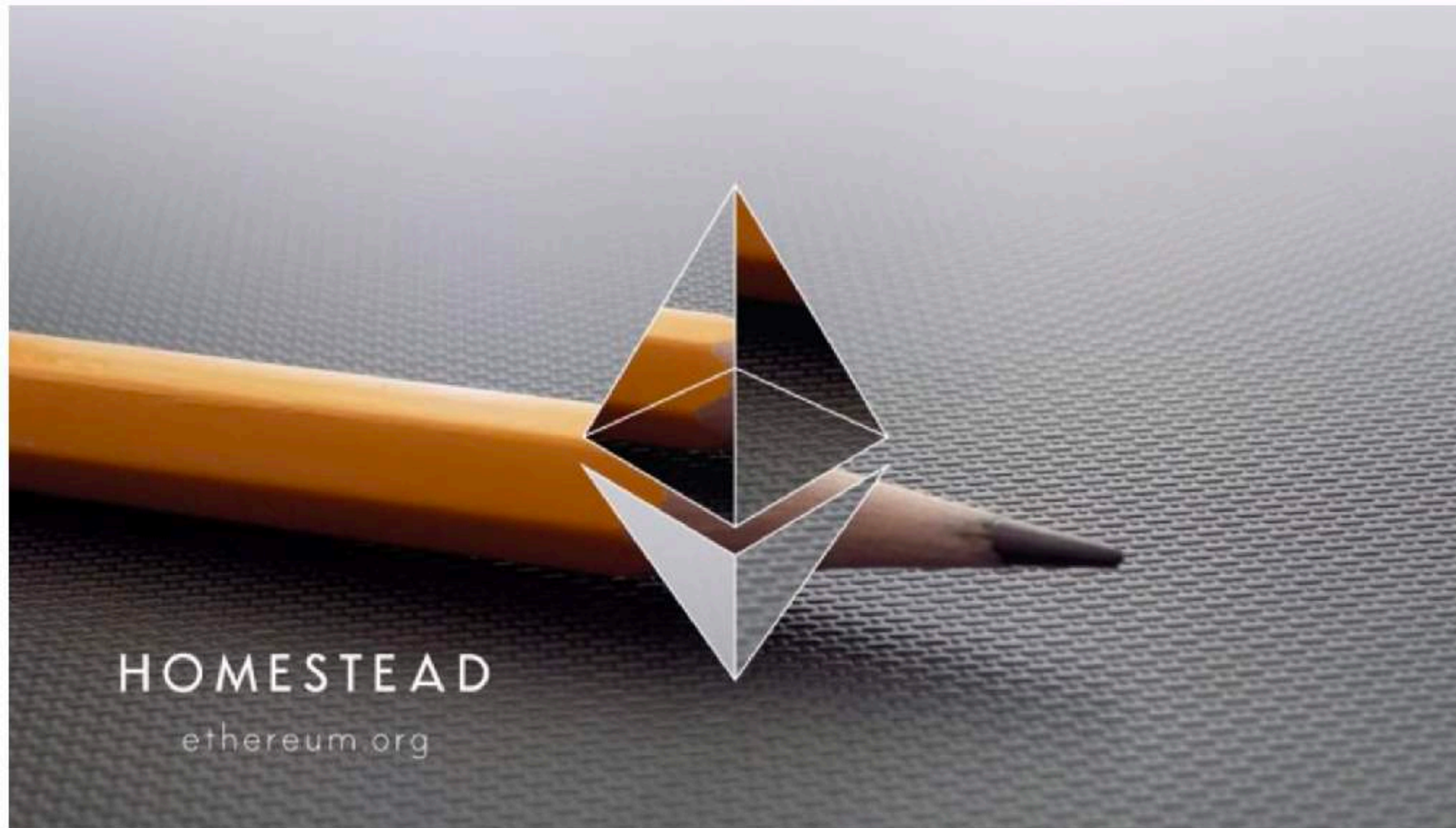
## Parity pushes new Ethereum testnet 'Kovan' after spam attacks

■ Ten Ethereum companies launch Proof of Authority testnet after Ropsten suffered a DoS attack on Feb 24.



By Ian Allison

Updated March 6, 2017 14:36 GMT

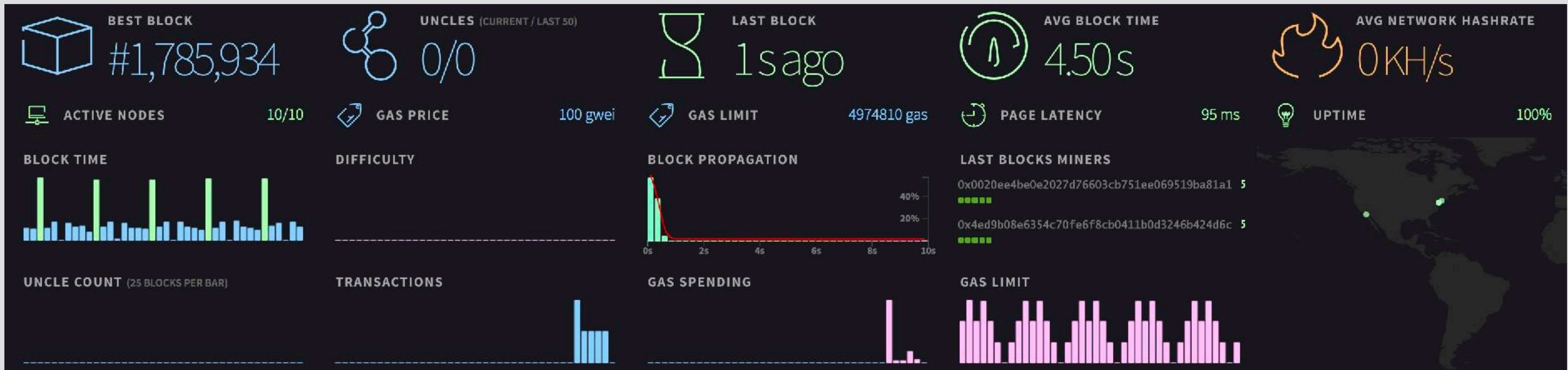


Within 24 hours, the consortium came together to organize the launch

Drafted at the SGInnovate Coworking Space at 32 Carpenter Street

- Kovan, a new testnet for Ethereum, relies on Parity's Proof of Authority consensus engine
- No mining involved
- Immune to spam attacks (as Ether supply is controlled by trusted parties, *validators*)
- Consistent 4 seconds block time, reduced overall maintenance costs (GPU-mining)
- No difference in the way that contracts are executed compared to PoW chains
- <http://kovan-stats.parity.io/>

# Kovan-stats dashboard



**ATTENTION!**

This page does not represent the entire state of the ethereum network - list

Node Name	Client	Latency	Sync	Peers	Block	Gas Used	Gas Price	Hashrate	Uncles	Block Time	Uptime	
Parity Kovan Bootnode #0	Parity//v1.6.6-beta-8c6e3f3-20170411/x86_64-linux-gnu/rustc1.16.0	9 ms	⊗	69	0	#1,785,934	260f660c...18175a65	5.572787308945863e+44	0	0	1 s ago	0 ms
Attores Kovan Authority Node #0	Parity//v1.6.6-beta-8c6e3f3-20170411/x86_64-linux-gnu/rustc1.16.0	91 ms	⊗	24	0	#1,785,934	260f660c...18175a65	5.572787308945863e+44	0	0	1 s ago	+81 ms
Parity Kovan Bootnode #1	Parity//v1.6.6-beta-8c6e3f3-20170411/x86_64-linux-gnu/rustc1.16.0	2 ms	⊗	66	0	#1,785,934	260f660c...18175a65	5.572787308945863e+44	0	0	1 s ago	+98 ms
Melonport Kovan Authority Node #0	Parity//v1.6.6-beta-8c6e3f3-20170411/x86_64-linux-gnu/rustc1.16.0	6 ms	⊗	31	0	#1,785,934	260f660c...18175a65	5.572787308945863e+44	0	0	1 s ago	+102 ms
Parity Kovan Authority Node #0	Parity//v1.6.6-beta-8c6e3f3-20170411/x86_64-linux-gnu/rustc1.16.0	87 ms	⊗	50	0	#1,785,934	260f660c...18175a65	5.572787308945863e+44	0	0	1 s ago	+233 ms
Aurel's Kovan Authority Node #0	Parity//v1.6.6-beta-8c6e3f3-20170411/x86_64-linux-gnu/rustc1.16.0	19 ms	⊗	19	0	#1,785,934	260f660c...18175a65	5.572787308945863e+44	0	0	1 s ago	+326 ms
GridSingularity Kovan Authority Node #0	Parity//v1.6.6-beta-8c6e3f3-20170411/x86_64-linux-gnu/rustc1.16.0	95 ms	⊗	50	0	#1,785,934	260f660c...18175a65	5.572787308945863e+44	0	0	1 s ago	+341 ms
TenX Kovan Authority Node #6	Parity//v1.7.0-nightly-badb372-20170320/x86_64-linux-gnu/rustc1.16.0	94 ms	⊗	5	0	#1,785,934	260f660c...18175a65	5.572787308945863e+44	0	0	1 s ago	+419 ms
Digix Kovan Authority Node #0	Parity//v1.6.2-beta-8a27211-20170311/x86_64-linux-gnu/rustc1.15.1	90 ms	⊗	25	0	#1,785,934	260f660c...18175a65	5.572787308945863e+44	0	0	1 s ago	+434 ms
Parity Kovan Bootnode #2	Parity//v1.7.0-nightly-38ed39e-20170511/x86_64-linux-gnu/rustc1.17.0	46 ms	⊗	27	0	#0	00000000...00000000	0	0	0	∞	0 ms

## Blocks

View All

Block 1787268  
> 5 secs ago

Mined By [POA-Attores](#)  
2 txns in 4 secs  
Block Reward 5.01044 Ether

Block 1787267  
> 9 secs ago

Mined By [POA-Etherscan](#)  
0 txns in 4 secs  
Block Reward 5 Ether

Block 1787266  
> 13 secs ago

Mined By [POA-GridS](#)  
2 txns in 4 secs  
Block Reward 5.03682 Ether

Block 1787265  
> 17 secs ago

Mined By [POA-Aurel](#)  
2 txns in 8 secs  
Block Reward 5.00762 Ether

Block 1787264  
> 25 secs ago

Mined By [POA-Digix](#)  
2 txns in 4 secs  
Block Reward 5.00758 Ether

Block 1787263  
> 29 secs ago

Mined By [POA-Paritytech](#)  
1 txn in 4 secs  
Block Reward 5.094 Ether

## Transactions

View All

TX# [0X667AAED2B18F68D782B33FF...](#) > 5 secs ago  
From [0x00e0b33cdb3af8b...](#) To [0xbebf472bf654c75...](#)  
Amount 0 Ether

TX# [0XE049D8C947ADCDC310DA46...](#) > 5 secs ago  
From [0x00e0b33cdb3af8b...](#) To [0xbebf472bf654c75...](#)  
Amount 0 Ether

TX# [0XA90FEADB0EC50C666260828...](#) > 13 secs ago  
From [0x00e0b33cdb3af8b...](#) To [0xbebf472bf654c75...](#)  
Amount 0 Ether

TX# [0XF0BE492AB8FC87603B7D27F4...](#) > 13 secs ago  
From [0x00e0b33cdb3af8b...](#) To [0xbebf472bf654c75...](#)  
Amount 0 Ether

TX# [0X6B2C66D6A69BC8CB2F257C6...](#) > 17 secs ago  
From [0x00e0b33cdb3af8b...](#) To [0x7506c7bfed17925...](#)  
Amount 0 Ether

TX# [0X9239CFB8A26E80E410190675...](#) > 17 secs ago  
From [0x00e0b33cdb3af8b...](#) To [0x7506c7bfed17925...](#)  
Amount 0 Ether



KOVAN (POA) TESTNET

Search by Address / Txhash / Block / Token

GO

HOME

BLOCKCHAIN

ACCOUNT

TOKEN

CHART

MISC

## Transactions

Home / Transactions

A total of 253461 transactions found



First

Prev

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Last

TxHash	Block	Age	From		To	Value ↓	[TxFee]
<a href="#">0x0ead38bb19e80b...</a>	<a href="#">1787271</a>	3 secs ago	<a href="#">0x00e0b33cdb3af8b...</a>	➡	<a href="#">0x7506c7bfed17925...</a>	0 Ether	0.0030607
<a href="#">0xba38285d862706...</a>	<a href="#">1787271</a>	3 secs ago	<a href="#">0x00e0b33cdb3af8b...</a>	➡	<a href="#">0x7506c7bfed17925...</a>	0 Ether	0.0045607
<a href="#">0xf6d236ff269d2468...</a>	<a href="#">1787270</a>	8 secs ago	<a href="#">0x00e0b33cdb3af8b...</a>	➡	<a href="#">0xc151b622fded233...</a>	0 Ether	0.0030543
<a href="#">0x4e3807d805e3502..</a>	<a href="#">1787270</a>	8 secs ago	<a href="#">0x00e0b33cdb3af8b...</a>	➡	<a href="#">0xc151b622fded233...</a>	0 Ether	0.0045543
<a href="#">0x667aaed2b18f68d...</a>	<a href="#">1787268</a>	16 secs ago	<a href="#">0x00e0b33cdb3af8b...</a>	➡	<a href="#">0xbecf472bf654c75...</a>	0 Ether	0.005225
<a href="#">0xe049d8c947adcd...</a>	<a href="#">1787268</a>	16 secs ago	<a href="#">0x00e0b33cdb3af8b...</a>	➡	<a href="#">0xbecf472bf654c75...</a>	0 Ether	0.0052239
<a href="#">0xa90feadb0ec50c6...</a>	<a href="#">1787266</a>	24 secs ago	<a href="#">0x00e0b33cdb3af8b...</a>	➡	<a href="#">0xbecf472bf654c75...</a>	0 Ether	0.0191627
<a href="#">0xf0be492ab8fc876...</a>	<a href="#">1787266</a>	24 secs ago	<a href="#">0x00e0b33cdb3af8b...</a>	➡	<a href="#">0xbecf472bf654c75...</a>	0 Ether	0.0176627
<a href="#">0x6b2c66d6a69bc8...</a>	<a href="#">1787265</a>	28 secs ago	<a href="#">0x00e0b33cdb3af8b...</a>	➡	<a href="#">0x7506c7bfed17925...</a>	0 Ether	0.0030607
<a href="#">0x9239cfb8a26e80e...</a>	<a href="#">1787265</a>	28 secs ago	<a href="#">0x00e0b33cdb3af8b...</a>	➡	<a href="#">0x7506c7bfed17925...</a>	0 Ether	0.0045607
<a href="#">0x38cc38cd331fa41...</a>	<a href="#">1787264</a>	36 secs ago	<a href="#">0x00e0b33cdb3af8b...</a>	➡	<a href="#">0x9e4c56a633dd64a...</a>	0 Ether	0.0030415
<a href="#">0xfc31f6f6096923d7...</a>	<a href="#">1787264</a>	36 secs ago	<a href="#">0x00e0b33cdb3af8b...</a>	➡	<a href="#">0x9e4c56a633dd64a...</a>	0 Ether	0.0045415

- Hosting of Ethereum blockchain nodes
  - Loads of developers rely on testnet before live deployment, important to have a stable one
- Digix launched the Virtual Machine on the Azure to run the authority nodes for Kovan as a *validator*
- Provides the essential infrastructure for *validators* to host the Kovan testnet
- Using the archive nodes that is provided by Azure, Ethereum blockchain becomes downloadable



# Kovan Testnet Gitter Lobby



GITTER

Kovan Testnet/Lobby General Organisation

70 UNREAD

ALL CONVERSATIONS

Kovan Testnet 70

YOUR SUGGESTIONS

- go-ethereum
- ethereumj
- truffle
- ethereum-api
- parity
- ethereum/welcome
- solidity
- ethereum/web3.js
- ethereum/mist
- tutorials
- research
- cpp-ethereum

ADD A ROOM

keorn @keorn  
@DaveAppleton What do you mean by wrong?  
Best to ask in the Parity gitter

May 20 07:56

Dave Appleton @DaveAppleton  
@keorn it means that i'm an idiot and was chasing the wrong transaction in a test tool written by an a\$\$ (me)  
😞

May 20 06:38

rich@ mind@ @richa\_minda\_twitter  
hey folks..can somebody plz transfer me 15 ethers..... my address is 0x006a50097c4FEaA98eB89AeFC030AaC07C8228d0

May 20 16:08

Jerome de Tychey @jdetychey  
Hey, what was the rational behind having 10 validators ?  
Is it a magic number like 10 minutes blocktime  
Or is there something more profound to this

May 21 21:10

keorn @keorn  
@jdetychey Its actually 9, just the [parties that wanted to participate](#)

May 21 21:12

Jerome de Tychey @jdetychey  
Well I wanted to but was not invited ^/^\nSo it s more a magic number  
Than a equilibrium between a potential attack vector of having too many and too few validators

May 21 21:15

keorn @keorn  
@jdetychey We are still making a few changes on Parity side to enable validator contract based warp sync. Then the set will be much more flexible (based on voting).

May 22 17:21

Click here to type a chat message. Supports GitHub flavoured markdown.

PEOPLE

ADD SEE ALL (124 PEOPLE)

ACTIVITY

- azappella starred kovan-testnet/proposal May 19
- mobfoundry starred kovan-testnet/proposal May 16
- urugang starred kovan-testnet/proposal Apr 26
- vyorkin starred kovan-testnet/proposal Apr 14
- hitchcott on master Mar 16  
[Update README.md typo Merge pull request #11 from jde...](#)  
(compare)



# Thank you!



Reach out to me at

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