



CHALLENGING IT



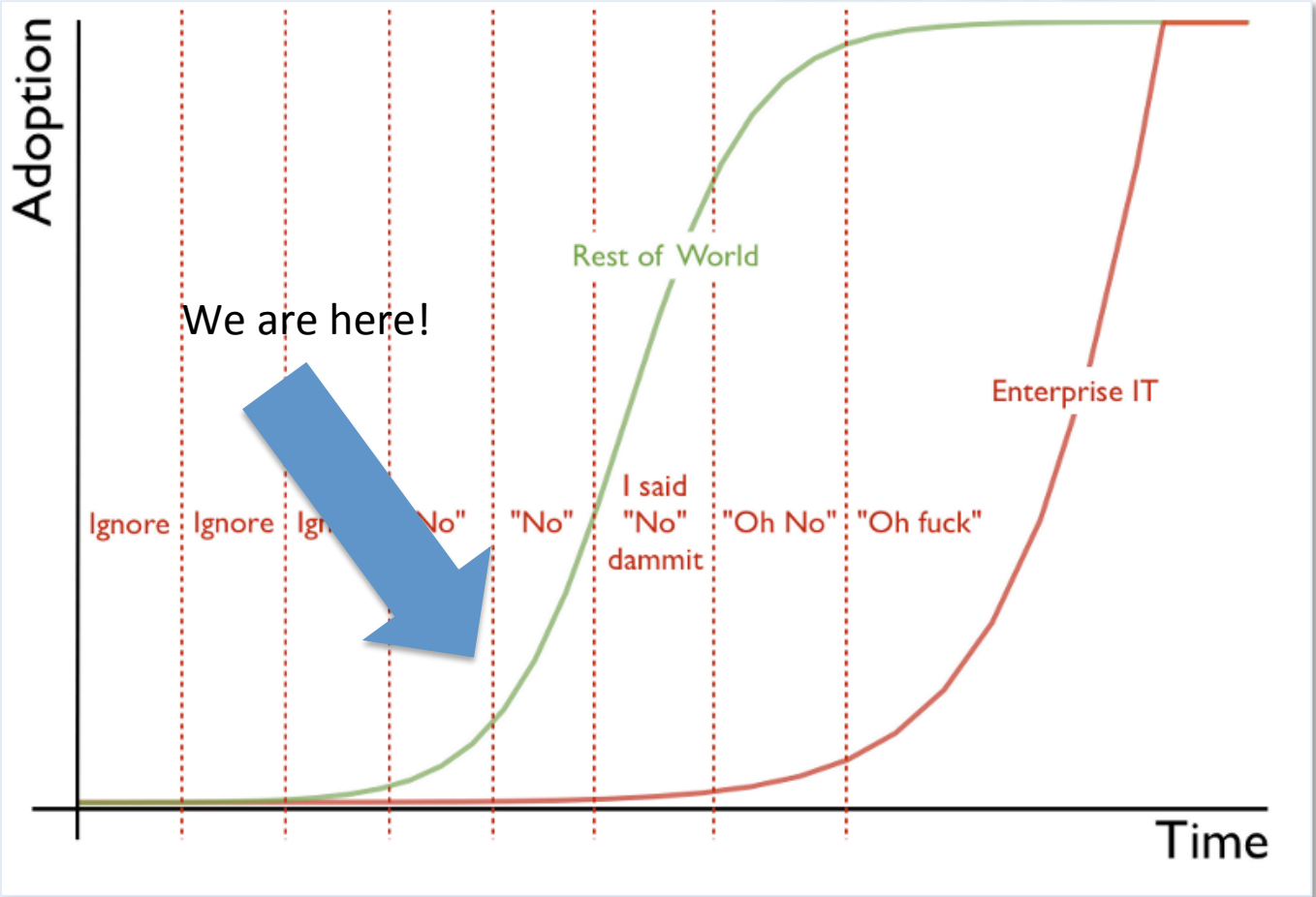
Blockchain @ ICU

Blockchain is het nieuwe Cloud

(of DevOps)



Enterprise IT adoption Cycle



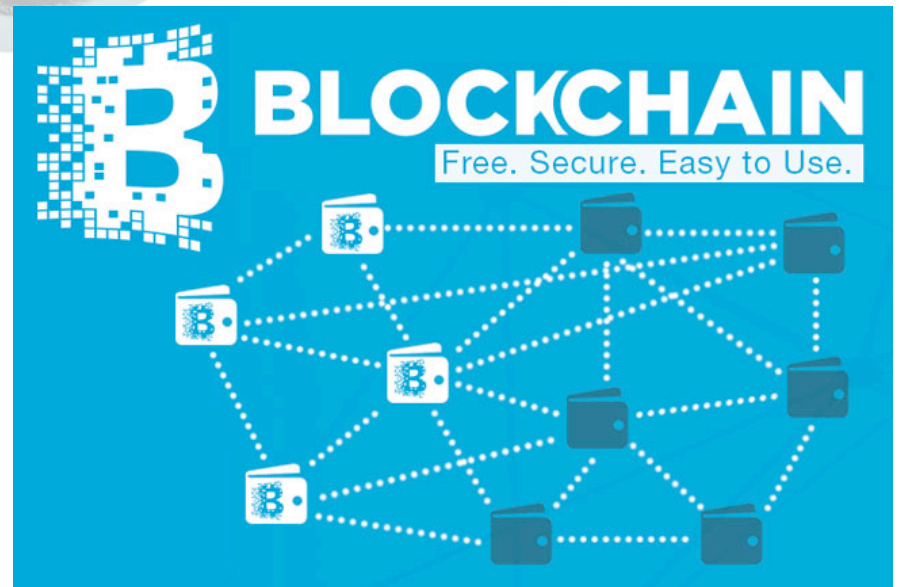
Blockchain

- **Business networks** connect businesses
- **Assets** flow over business networks
- **Transactions** describe asset exchange
- **Participants** submit transactions
- **Contracts** define rules for transactions
- **Ledger** is a log of transactions

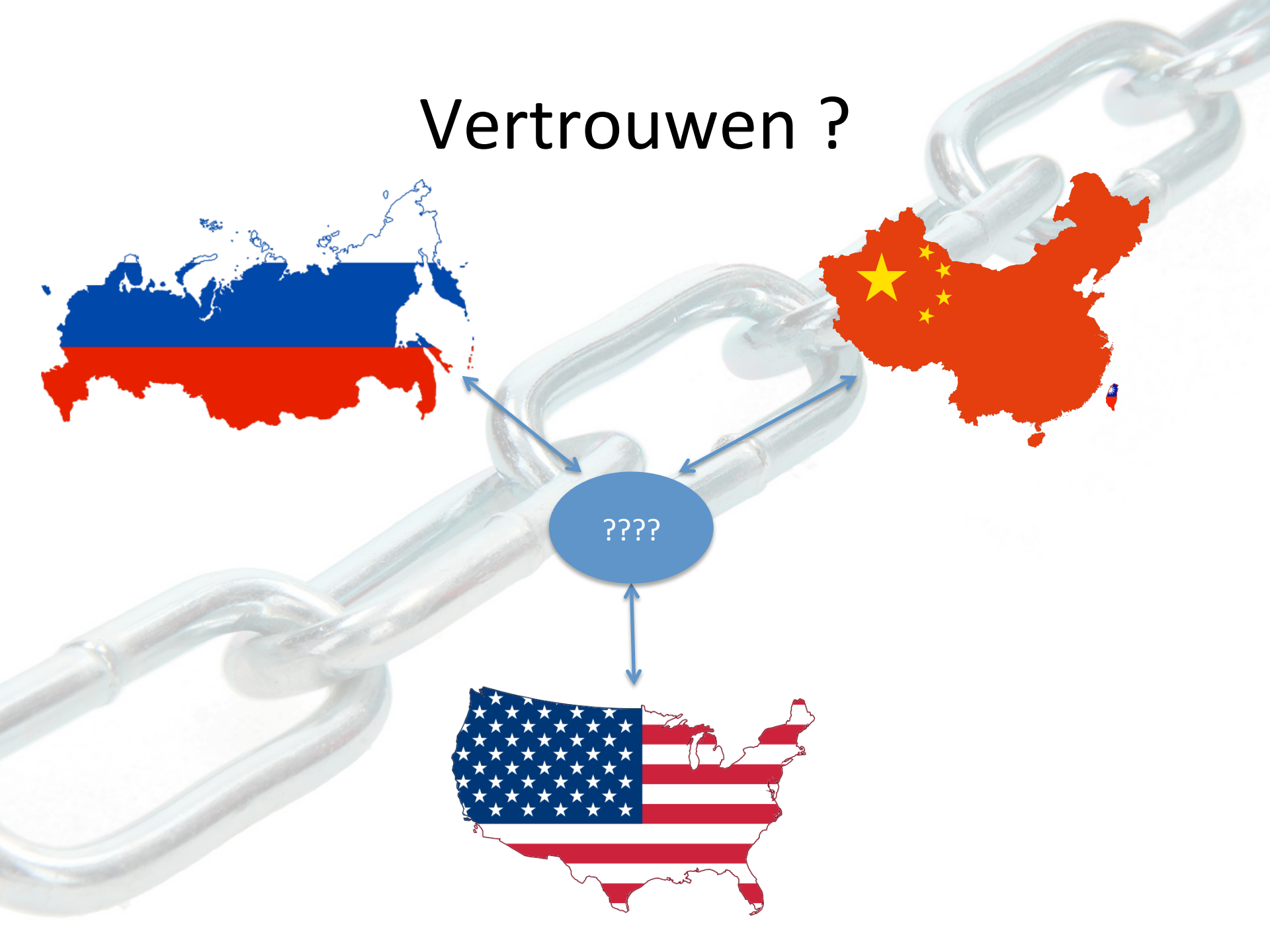
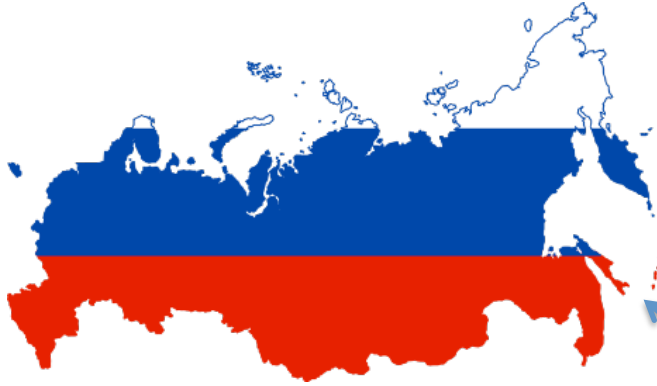


Het gaat allemaal om

- Vertrouwen
- Traceerbaarheid
- Veiligheid
- Performance
- Schaalbaarheid



Vertrouwen ?



Traceerbaarheid



Alle wijzigingen worden in volgorde op de blockchain vastgelegd.

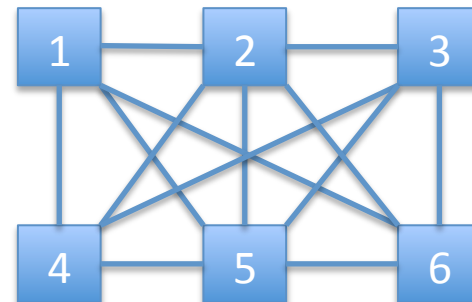
Maar hoe inzichtelijk is het nog als de blockchain heel lang wordt?

Veiligheid (onveranderbaarheid)



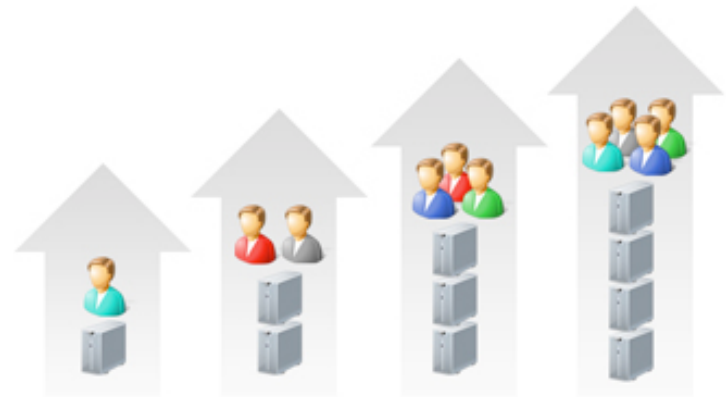
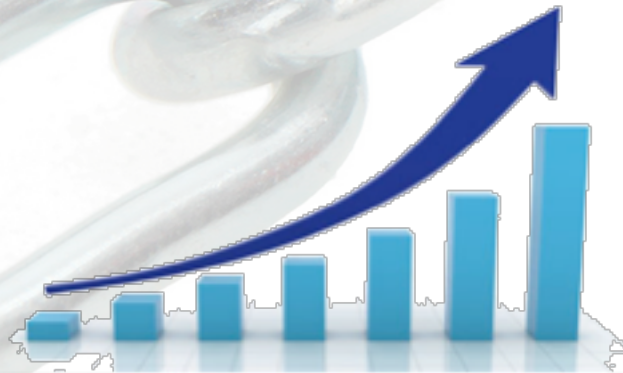
wijziging?

raakt alle volgende blokken... bij alle deelnemende partijen



Performance & Schaalbaarheid

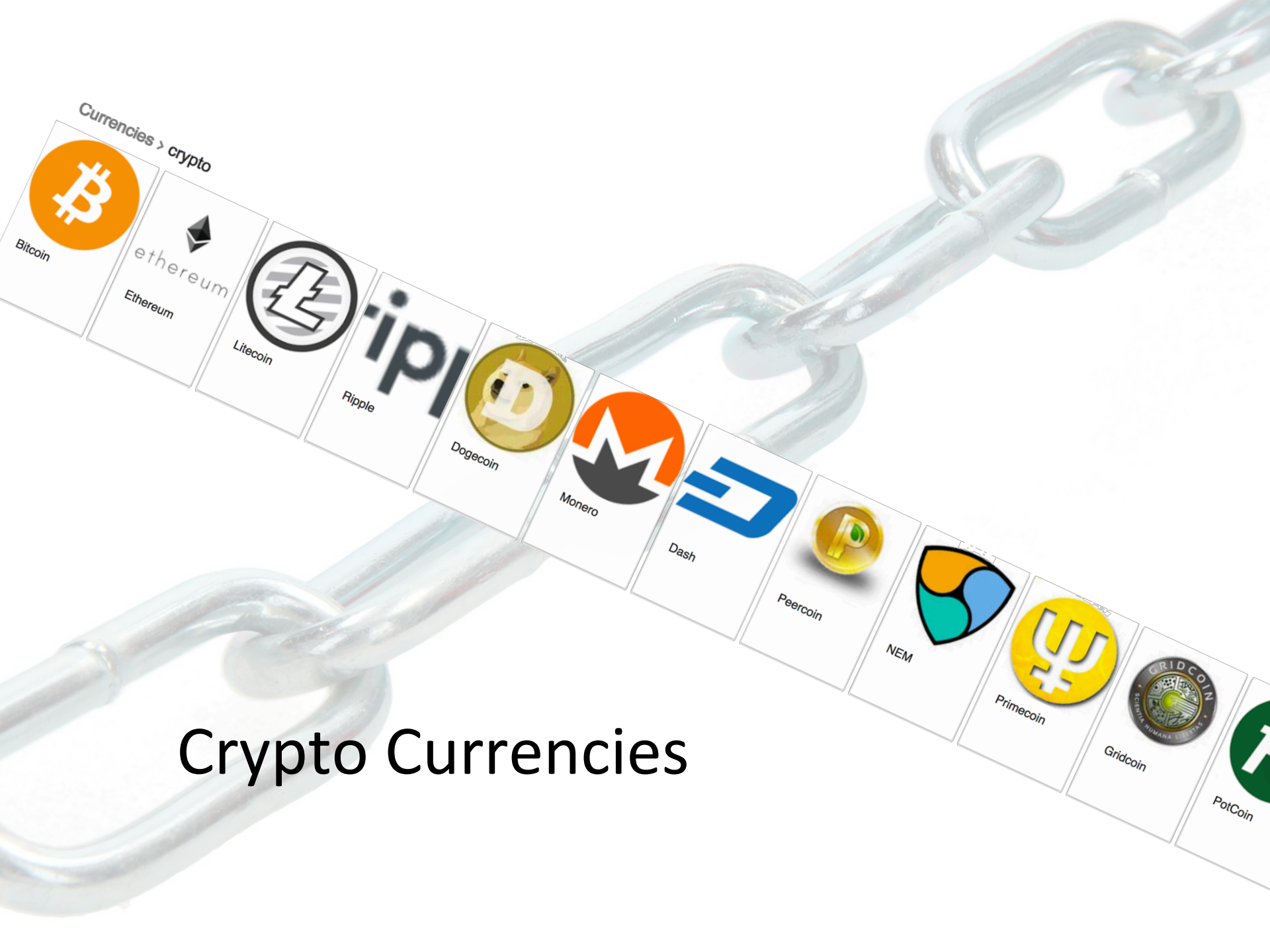
- chain moet lang mee kunnen gaan
- # nodes en deelnemers kan sterk groeien
- # blocks in de chain kan sterk groeien



Toepassingsgebieden

- Decentralized asset exchange
- Voting
- Supply Chain
- Fair trade
- Digital Identity





Currencies > crypto



Bitcoin



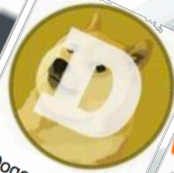
ethereum
Ethereum



Litecoin



Ripple



Dogecoin



Monero



Dash



Peercoin



NEM



Primecoin



Gridcoin

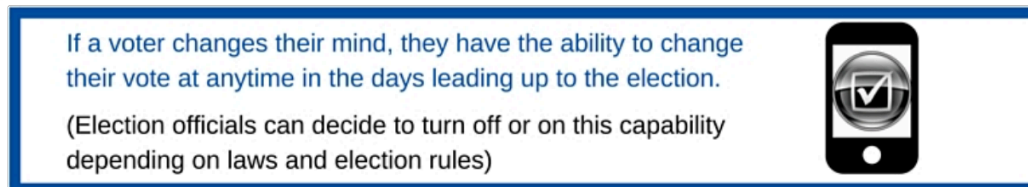
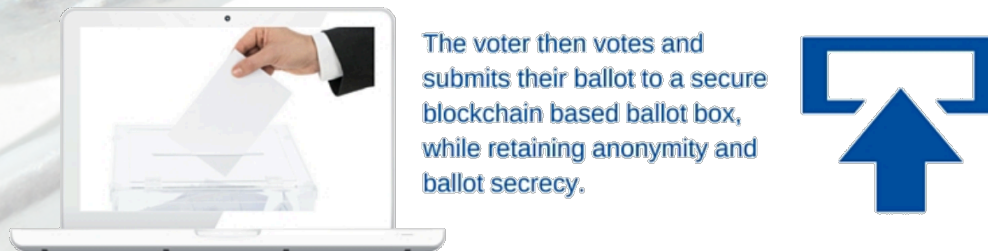
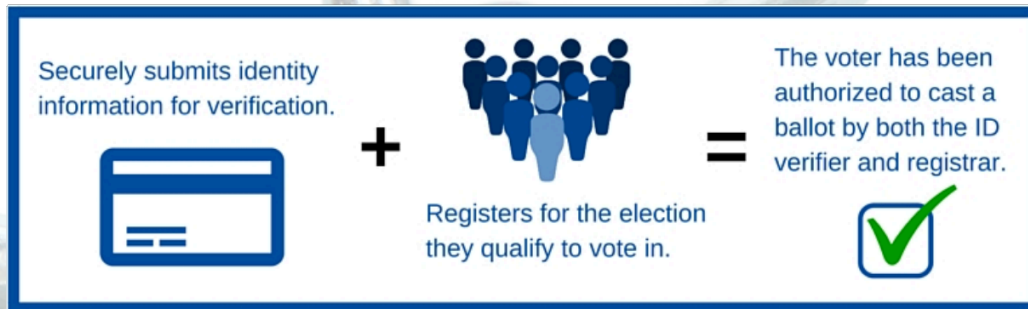
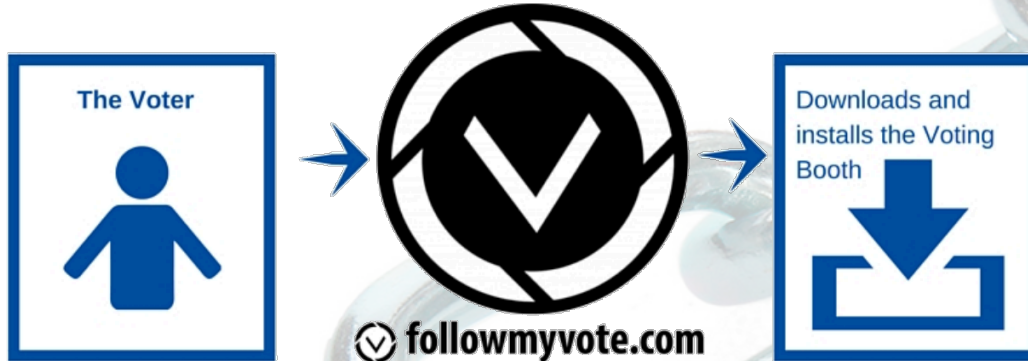


PotCoin

Crypto Currencies

Blockchain Voting

THE FOLLOW MY VOTE WAY



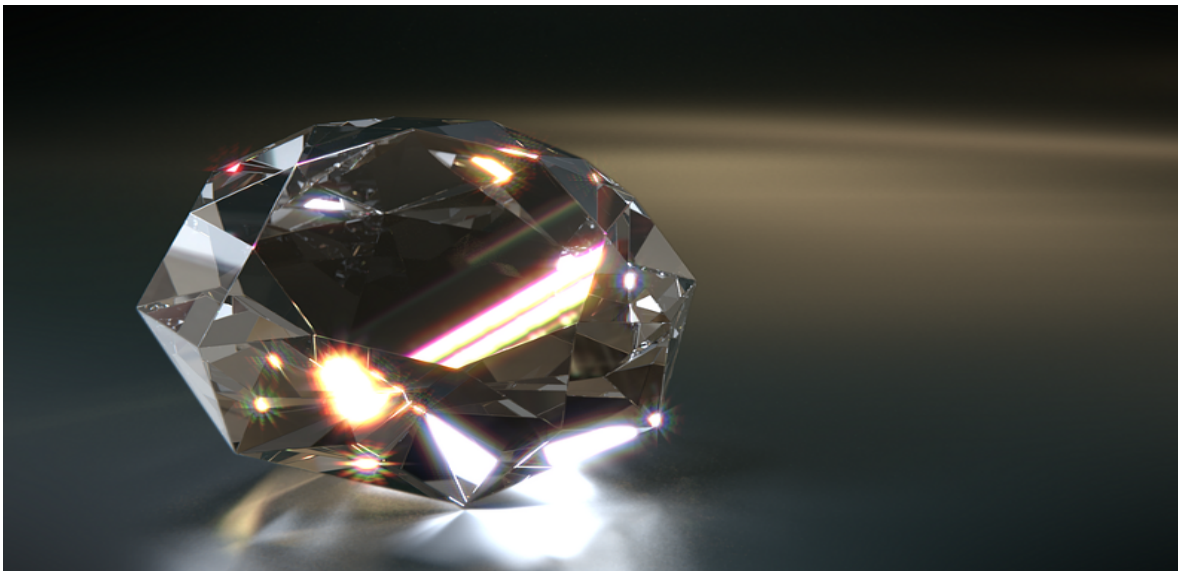


Our Mission

**Gather Together
1 Billion People to
Monetize Waste**



In 2016, The Plastic Bank started working with some of the largest organizations on the planet. Working with IBM, they expanded the vision to focus on building a global platform using Blockchain & Hyperledger Fabric on LinuxOne to create an APP based digital currency and exchange system.



At the end of the day, man-made diamonds, “conflict” diamonds, and “ethical” diamonds are all the same, at a molecular level, but your girl wants a “real” diamond and the only way to know for sure is if you get one that has a unique and immutable history attached to it.

You soon won't be allowed, by social pressure, to buy one without clear provenance because it may be a “conflict” diamond or worse: man-made! *“Don't be a cheap-skate: show your love by giving 3 month's salary to a global conglomerate!”* So you are forced to buy a piece of compressed coal, dug from the dirt, for thousands of dollars when a molecularly identical stone is a fraction of the cost.

Welcome to the digital vault of the future.

Everledger is a global startup that uses the best of emerging technology including blockchain, smart contracts and machine vision to assist in the reduction of risk and fraud for banks, insurers and open marketplaces.

[FIND OUT MORE](#)

What We Do

We've built a global, digital ledger that tracks and protects valuable assets throughout their lifetime journey. We collect an asset's defining characteristics, history, and ownership to create a permanent record on the blockchain. This digital incarnation, or thumbprint, is used by various stakeholders across a supply chain pipeline to form provenance and verify authenticity.

At Everledger, we build innovative solutions in markets where provenance matters and where transparency is key to ensuring ethical trade.

Blockchain bij ICU



CHALLENGING IT

Verzamelen / delen kennis

Opbouwen infrastructuur

- Docker
- Hyperledger
- Chaincode

Onderzoeken

Toepassingen / Oplossingen



Hyperledger

- Open Source
- Linux Foundation Project
- Ondersteuning door grote bedrijven (o.a. IBM)
- Gericht op smart contracts
- Private blockchain implementatie
- Alle platformen (windows/mac/linux/Z/Linux1)



HYPERLEDGER



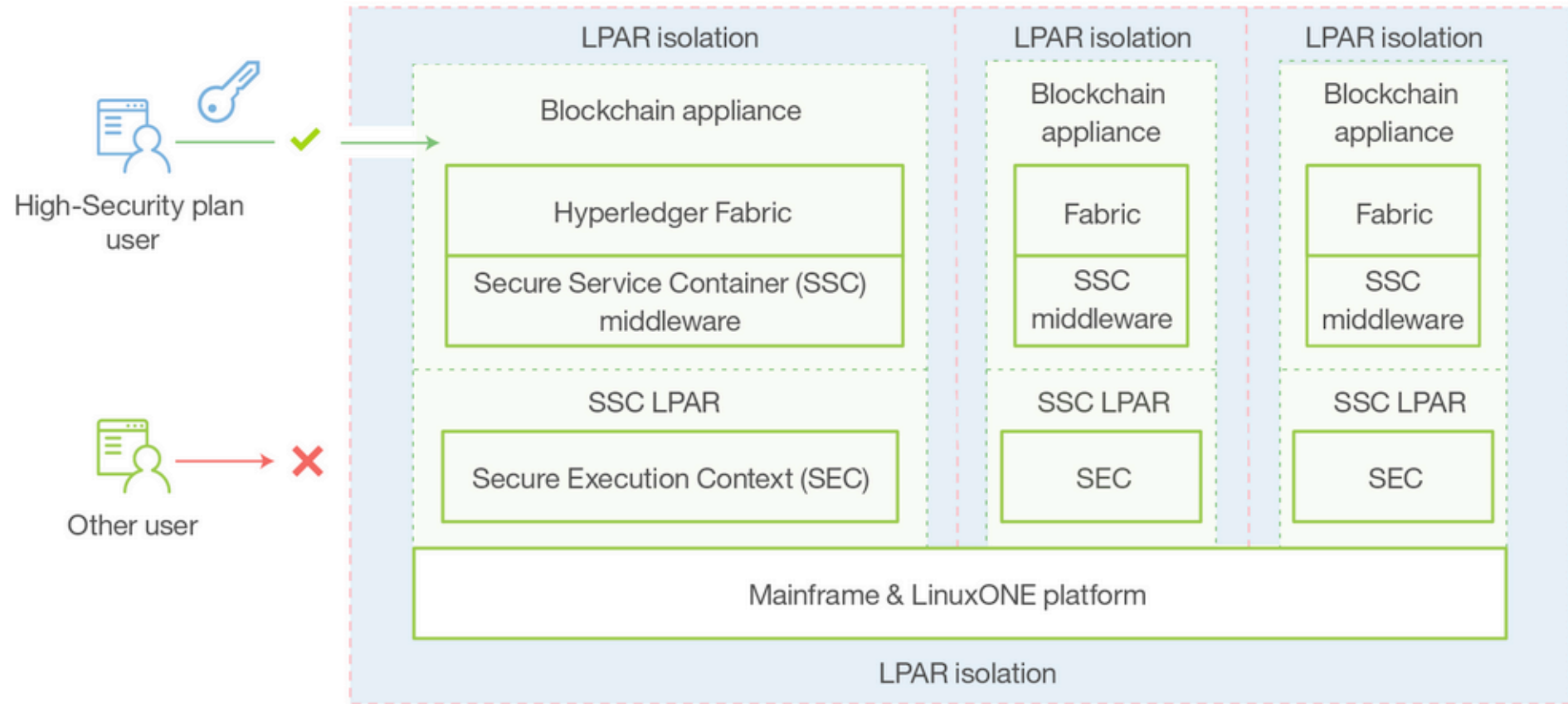
Kracht van Z / LinuxONE

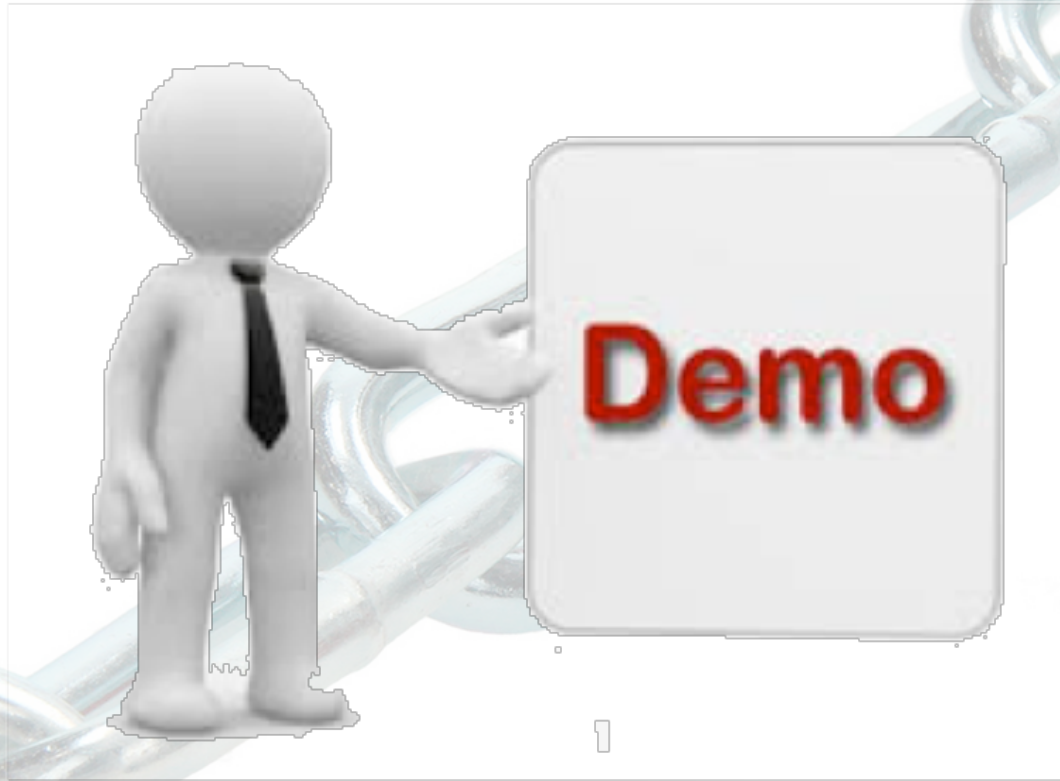


High volume transaction processing
Security
High availability
Continuity
Stability
Scalability

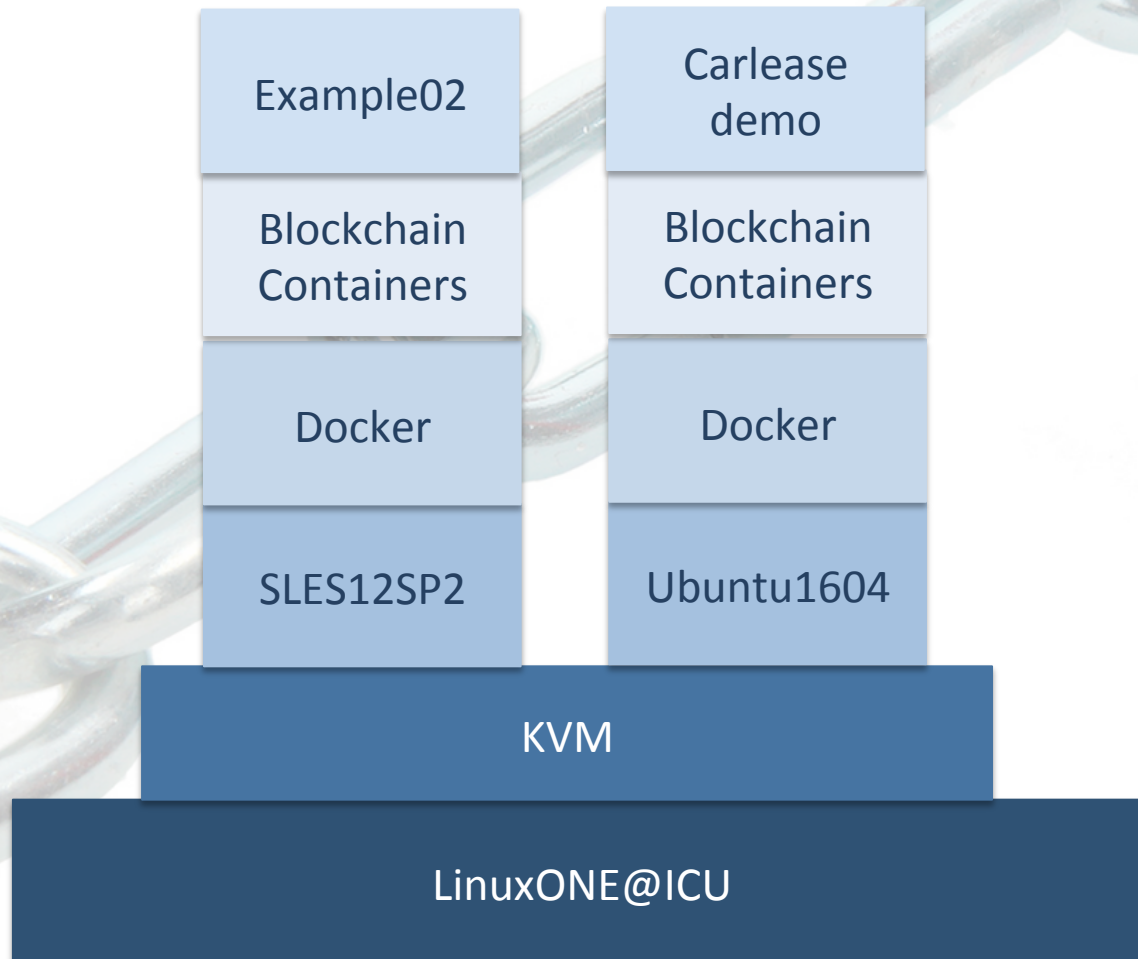
Secure Service Containers

Secure Service Containers

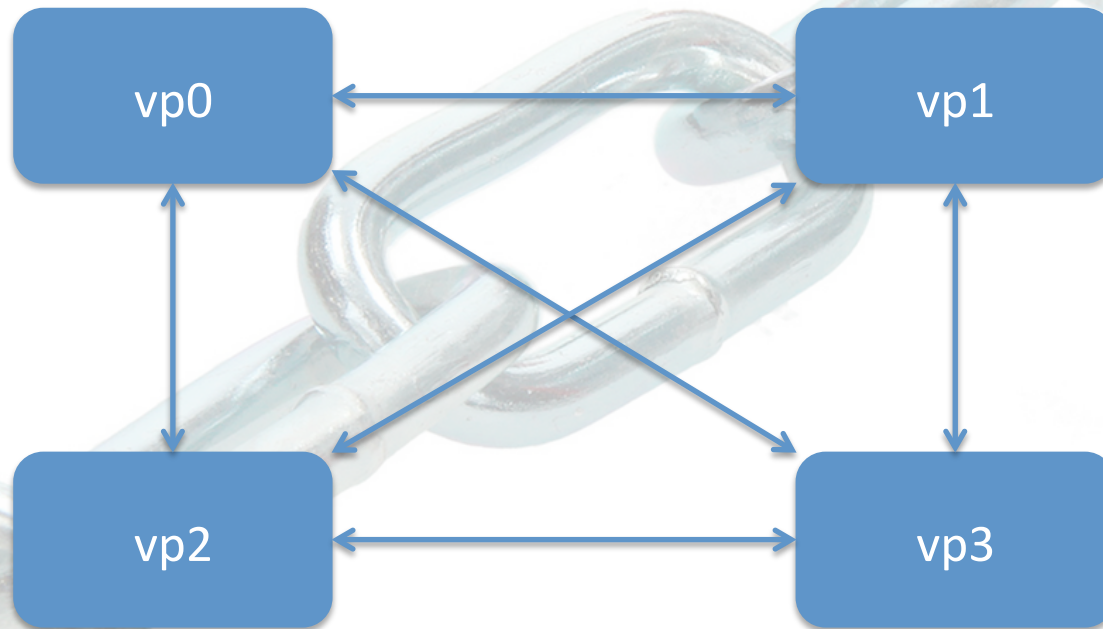




Omgeving



Example 4 peer network

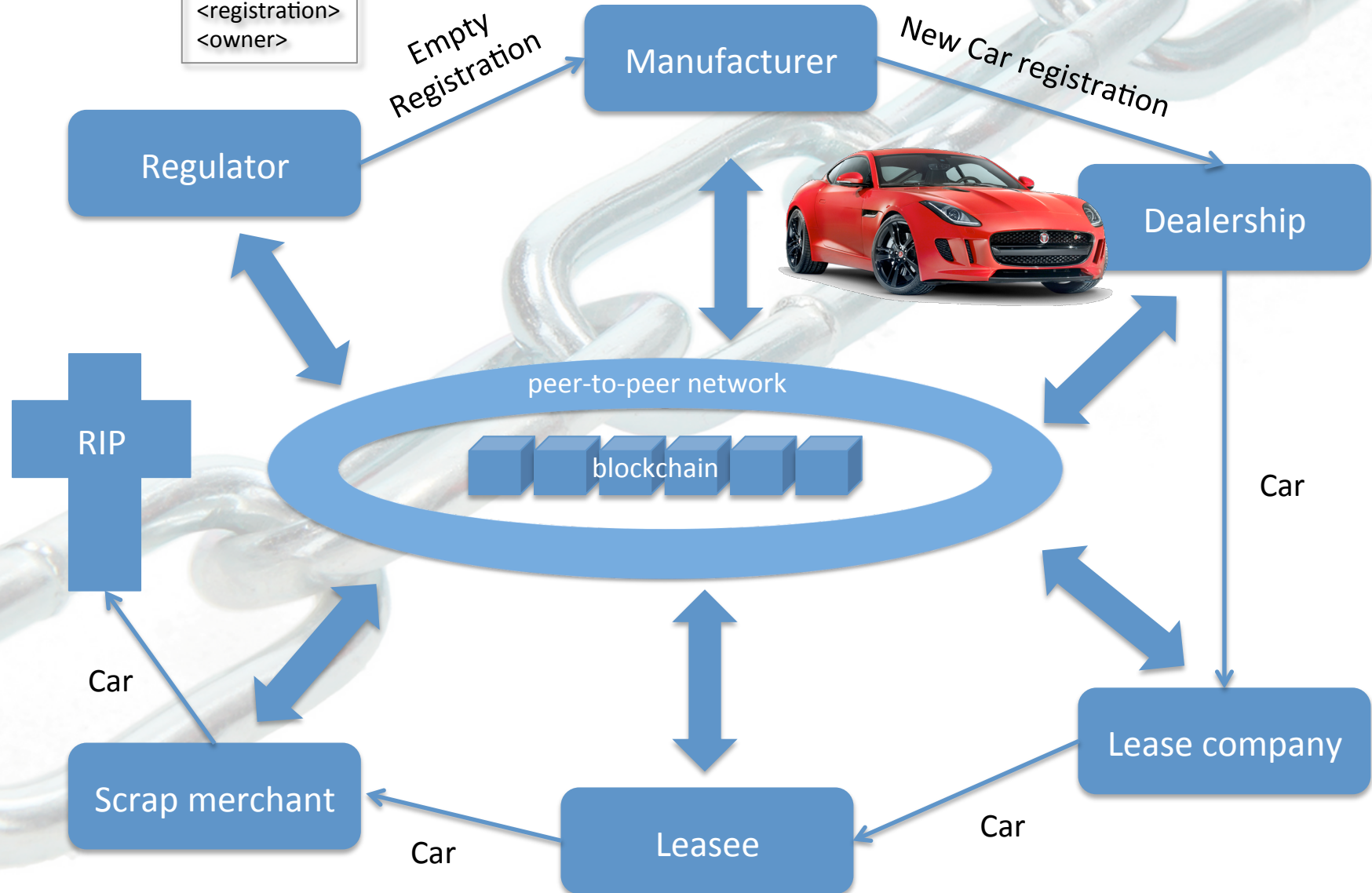


Johan: €1000

Ron: €2000

Car Life Cycle...

- <V5C id>
- <vin>
- <make>
- <model>
- <colour>
- <registration>
- <owner>



And now some technical stuff ...

```
johanschelling — johann@lnxicu31: ~ — ssh johann@192.168.10.182 — 150x45
~ — johann@lnxicu31: ~ — ssh johann@192.168.10.182
johann@blockchain2:~> docker ps
CONTAINER ID        IMAGE               COMMAND                  CREATED              STATUS              PORTS              NAMES
8572951c06fe      dev-vp3-d43cbdf30ee29e403862b8f87973128a81879eb755f84713c48a78e0129b3de1203c581f8823a0168ffc9077e76de5216ff6b9dfe42ce11e6e312134e942d45f  "/opt/gopath/bin/d43c"  About an hour ago   Up About an hour   dev-vp3-d43cbdf30ee29e403862b8f87973128a81879eb755f84713
c48a78e0129b3de1203c581f8823a0168ffc9077e76de5216ff6b9dfe42ce11e6e312134e942d45f  "/opt/gopath/bin/d43c"  About an hour ago   Up About an hour   dev-vp1-d43cbdf30ee29e403862b8f87973128a81879eb755f84713
d9befee06132      dev-vp1-d43cbdf30ee29e403862b8f87973128a81879eb755f84713c48a78e0129b3de1203c581f8823a0168ffc9077e76de5216ff6b9dfe42ce11e6e312134e942d45f  "/opt/gopath/bin/d43c"  About an hour ago   Up About an hour   dev-vp1-d43cbdf30ee29e403862b8f87973128a81879eb755f84713
c48a78e0129b3de1203c581f8823a0168ffc9077e76de5216ff6b9dfe42ce11e6e312134e942d45f  "/opt/gopath/bin/d43c"  About an hour ago   Up About an hour   dev-vp2-d43cbdf30ee29e403862b8f87973128a81879eb755f84713c48a78e0129b3de1203c581f8823a0168ffc9077e76de5216ff6b9dfe42ce11e6e312134e942d45f  "/opt/gopath/bin/d43c"  About an hour ago   Up About an hour   dev-vp2-d43cbdf30ee29e403862b8f87973128a81879eb755f84713
42d45f           "/opt/gopath/bin/d43c"  About an hour ago   Up About an hour   dev-vp0-d43cbdf30ee29e403862b8f87973128a81879eb755f84713c48a78e0129b3de1203c581f8823a0168ffc9077e76de5216ff6b9dfe42ce11e6e312134e942d45f  "/opt/gopath/bin/d43c"  About an hour ago   Up About an hour   dev-vp0-d43cbdf30ee29e403862b8f87973128a81879eb755f84713
4784f66ee257     dev-vp0-d43cbdf30ee29e403862b8f87973128a81879eb755f84713c48a78e0129b3de1203c581f8823a0168ffc9077e76de5216ff6b9dfe42ce11e6e312134e942d45f  "/opt/gopath/bin/d43c"  About an hour ago   Up About an hour   dev-vp0-d43cbdf30ee29e403862b8f87973128a81879eb755f84713
42d45f           "/opt/gopath/bin/d43c"  About an hour ago   Up About an hour   dev-vp0-d43cbdf30ee29e403862b8f87973128a81879eb755f84713
c48a78e0129b3de1203c581f8823a0168ffc9077e76de5216ff6b9dfe42ce11e6e312134e942d45f  "/opt/gopath/bin/d43c"  About an hour ago   Up About an hour   dev-vp0-d43cbdf30ee29e403862b8f87973128a81879eb755f84713
450f161ae262     hyperledger/fabric-peer  "peer node start"     4 days ago         Up About an hour   fabric_vp2_1
867d60dd13ee     hyperledger/fabric-peer  "peer node start"     4 days ago         Up About an hour   fabric_vp3_1
ce76858bd85b     hyperledger/fabric-peer  "peer node start"     4 days ago         Up About an hour   fabric_vp1_1
8134d22874a3     hyperledger/fabric-peer  "peer node start"     4 days ago         Up About an hour   fabric_vp0_1
johann@blockchain2:~> █
```


ICU helpt ...



CHALLENGING IT

- Opbouwen en delen van kennis
- Maken van keuzes
- Inrichting van infrastructuur
- Beheer (en hosting) van omgevingen

ICU
Lost op

ICU
Levert

ICU
Deelt

ICU
Innoveert

Zet deze ICU evenementen vast in je agenda!

29 juni - Zomerborrel

Om de zomer in te luiden organiseren we een (netwerk) **BORREL**. BEN JIJ ER OOK BIJ?

Medio oktober - Technische meeting

Onze eerstvolgende **technische meeting** vindt na de zomer plaats. Een onderwerp hebben we nog niet, suggesties zijn altijd welkom.

Medio september – ICU Familiedag

Voor de ICU-ers organiseren we de **jaarlijkse familiedag**. Medio september. Wat we gaan doen is nog een verrassing!

