The industrial blockchain
is not a cryptocurrency
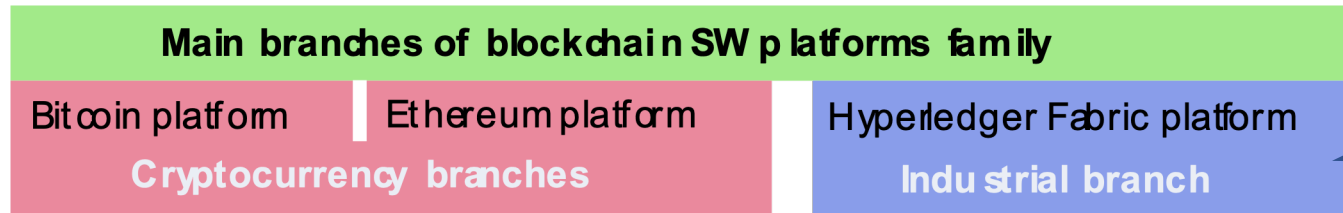
Solution

1. Industrial technology:

Main branches of blockchain SW platforms family		
Bitcoin platform	Ethereum platform	Hyperledger Fabric platform
Cryptocurrency branches		Industrial branch

Hyperledger Fabric is a big open-source project with 17,500 developers, supported by IBM

2. Consortium-type blockchain:

blockchain type	public	private	consortium
typical application	cryptocurrencies	internal security	public authority
node owners	anonymous	single owner	closed group
operation	permissionless	permissioned /controlled by owner	permission /controll is set by consortium rules included in blockchain settings
transaction frequency	low	high	high

A blockchain parameters like a membership, users rights, upgrades, smartcontracts.. can be controlled by **consortium rules** converted into blockchain software policies which are impossible to break

As every product, also blockchain passes its life cycle

The customer, blockchain user needs to be sure that supplier delivered a blockchain working during all phases of lifecycle reliably, effectively and meeting all both guaranted and expected standarts.
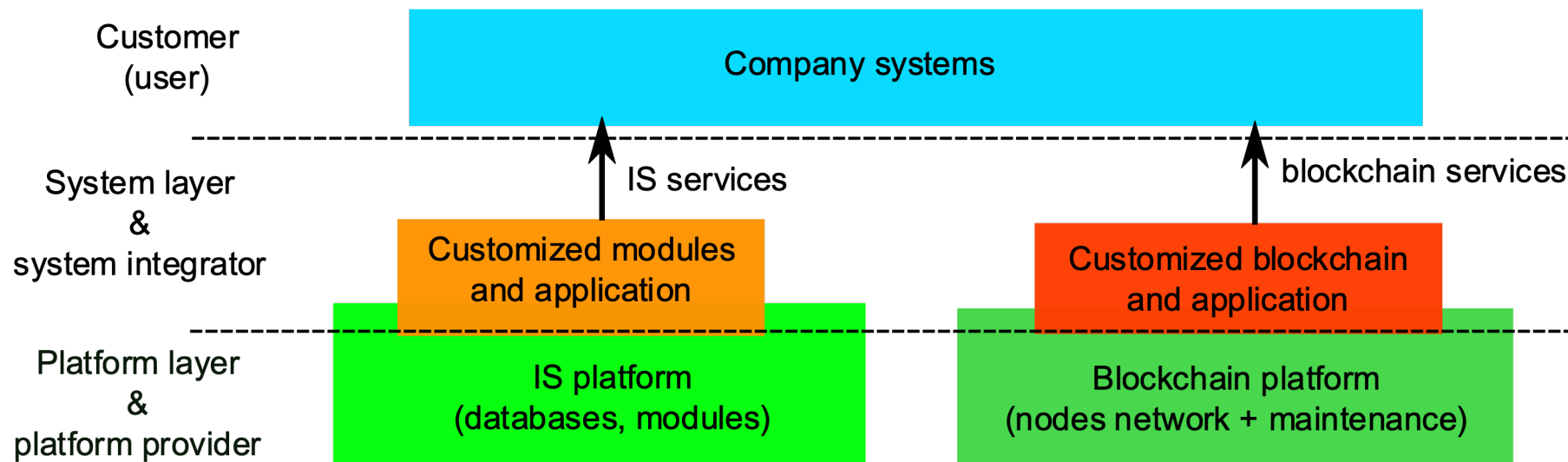
blockchain life cycle

design	installation	operation (production phase)	termination	liquidation

Consortium design
rights design
security analysis

node identities generation
cryptography generation
install packs assembly
installations

network monitoring
node status monitoring
SW maintenance
SW upgrades
cyber security management
network extension / reconfiguration
operation log

ledger migration
(if required)

ledger content
clearing
node uninstallation

A modern manufacturing is focused on manufacturing processes supporting processes are supposed to be outsouced
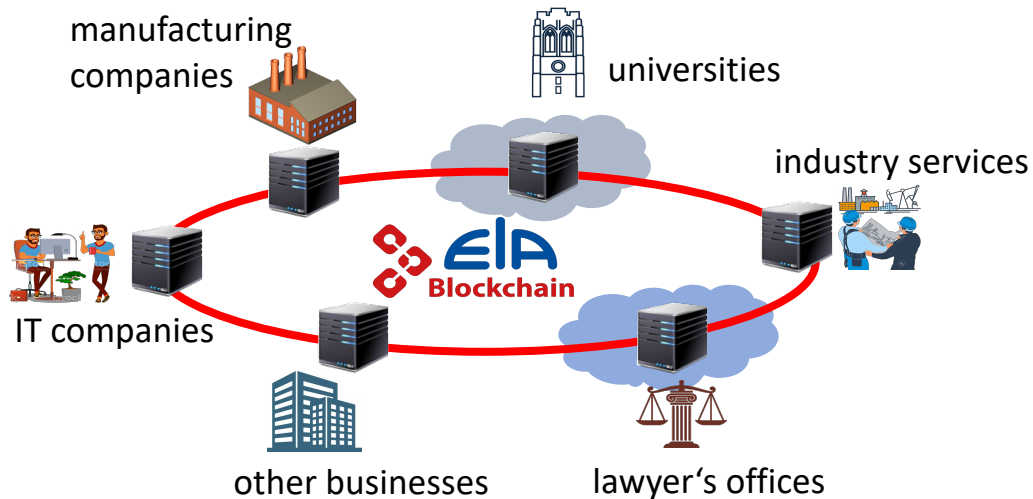
Our basic idea and business model:

Blockchain can be delivered similarly like company information system

For this solution, it is necessary:

1. Consortium of independent subjects

The best Consortium for running an industrial blockchain is a **community of various types of corporate bodies**.
Each of them administrates its own blockchain node independently, without any external interference into the node software and operation.
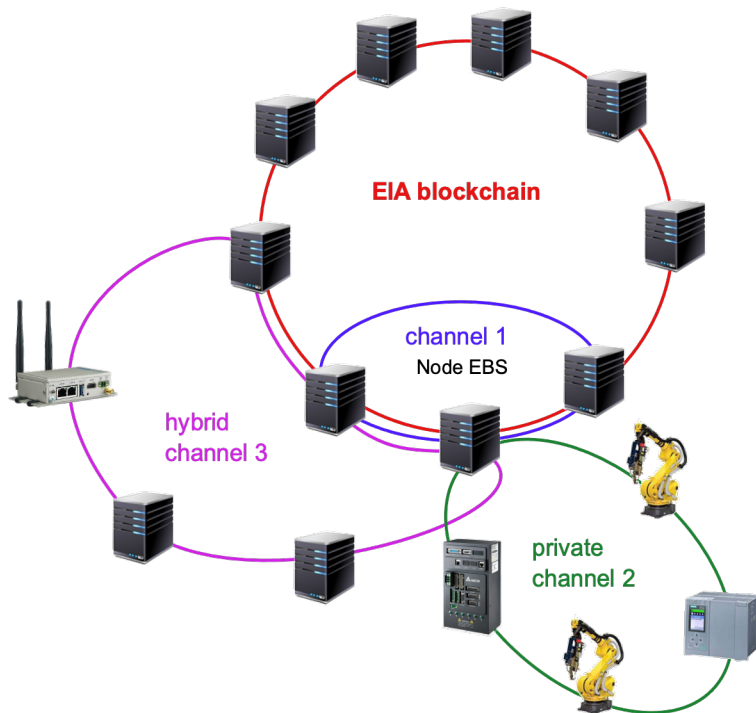
2. Tools and know-how for running this heterogenous network

A consortium member usually regards maintaining of the blockchain node only as a side business. He needs a support, but this support must not threaten the node independency.

We have developed tools and processes for safe administration of a consortium-type blockchain

Single blockchain is not enaugh

Unlike fintech, an industrial blockchain is required to provide more than tokenization.
In industry, a blockchain is used for many purposes like M2M and IoT communications, product tracing, business safety or cybersecurity. Various applications need various blockchains.

EIA blockchain

channel 1
Node EBS

hybrid
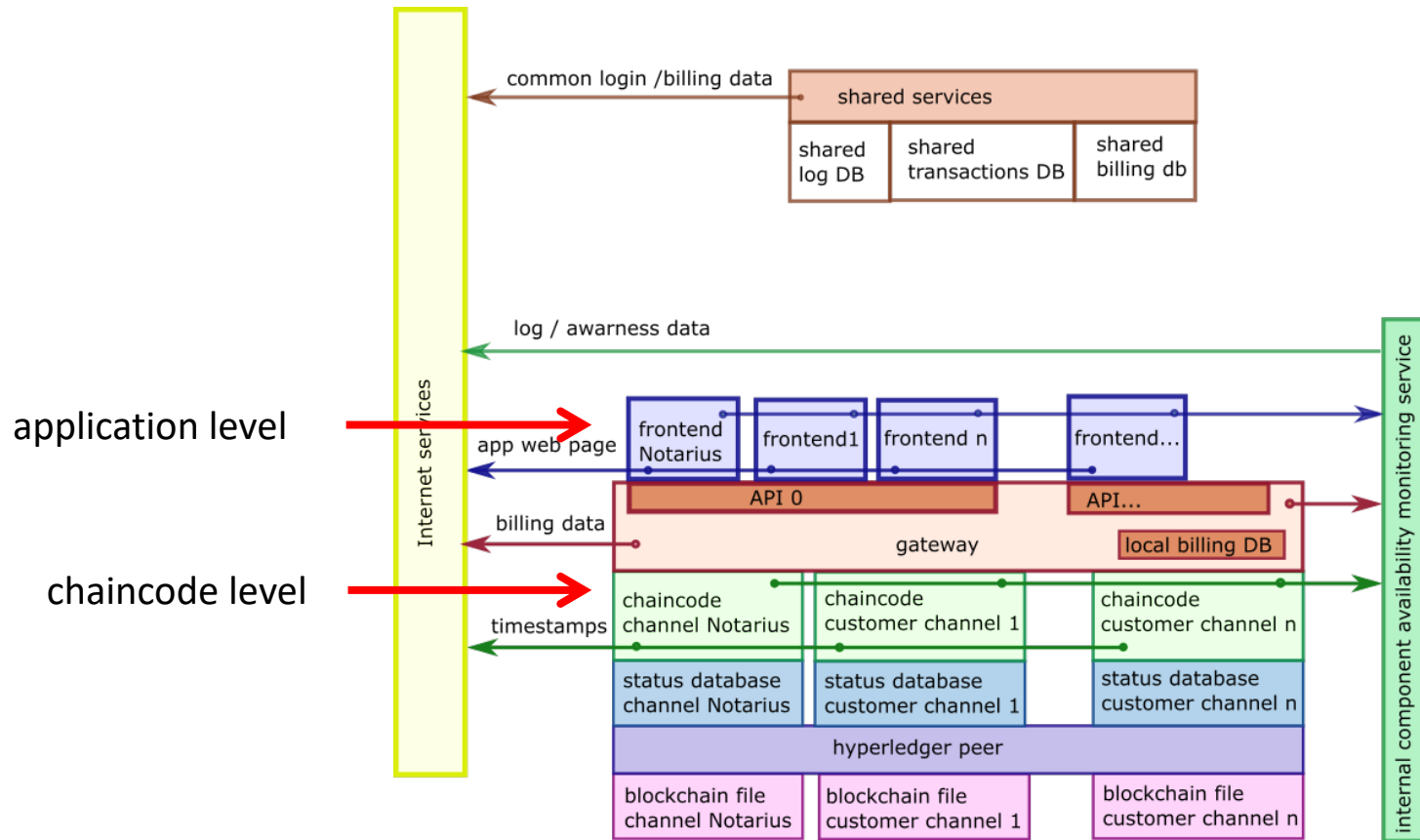channel 3

private
channel 2

Hyperledger technology enables simultaneous operation of more independent blockchains, so called **blockchain channels**, on any node.

Blockchain channel:
- independent blockchain
- public, private or hybrid type
- tailored for your application

Your own blockchain

Your project
- your project
- your customers
- your SW supplier
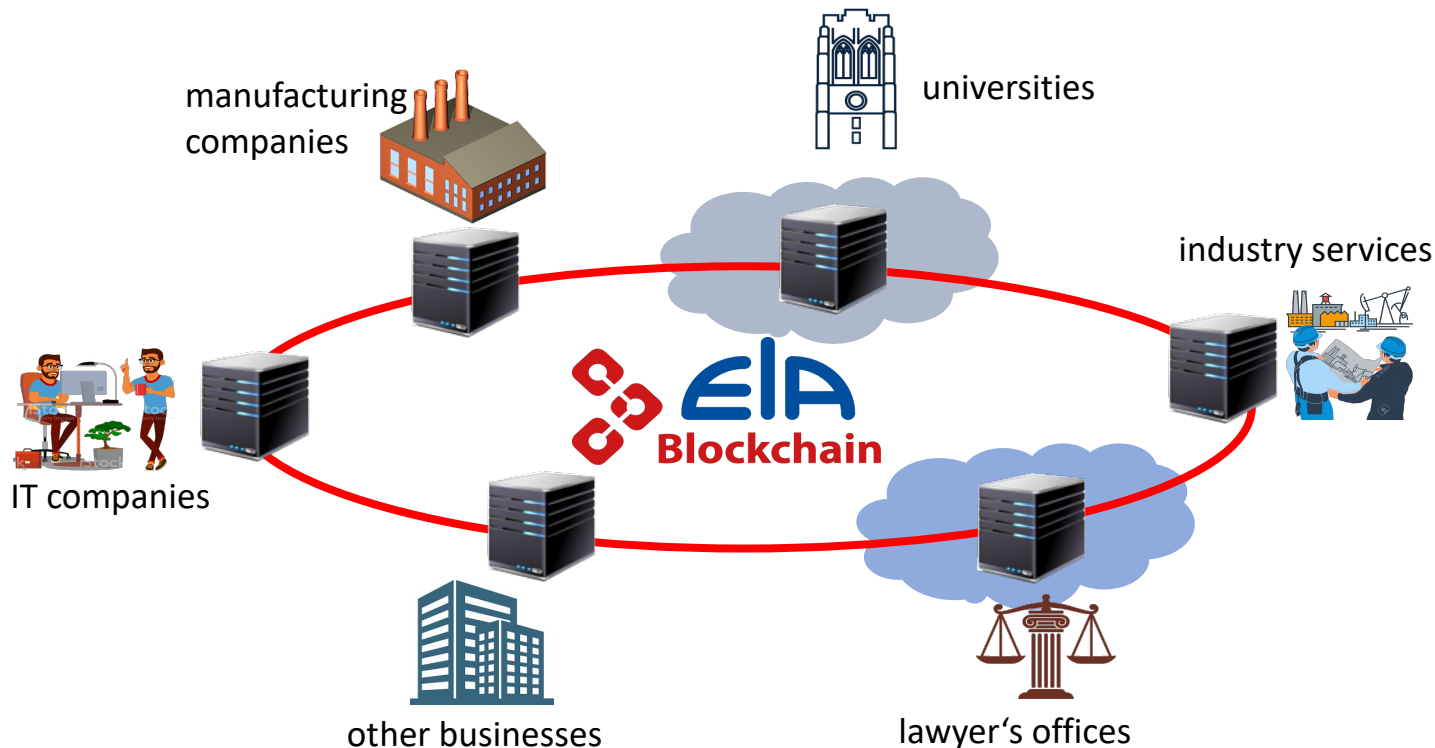- your software
- your business

Our conditions
- monitoring interface
- billing interface
- SW approvement made by EBS
- Installation from EBS GIT

Not only ideas, but running platform

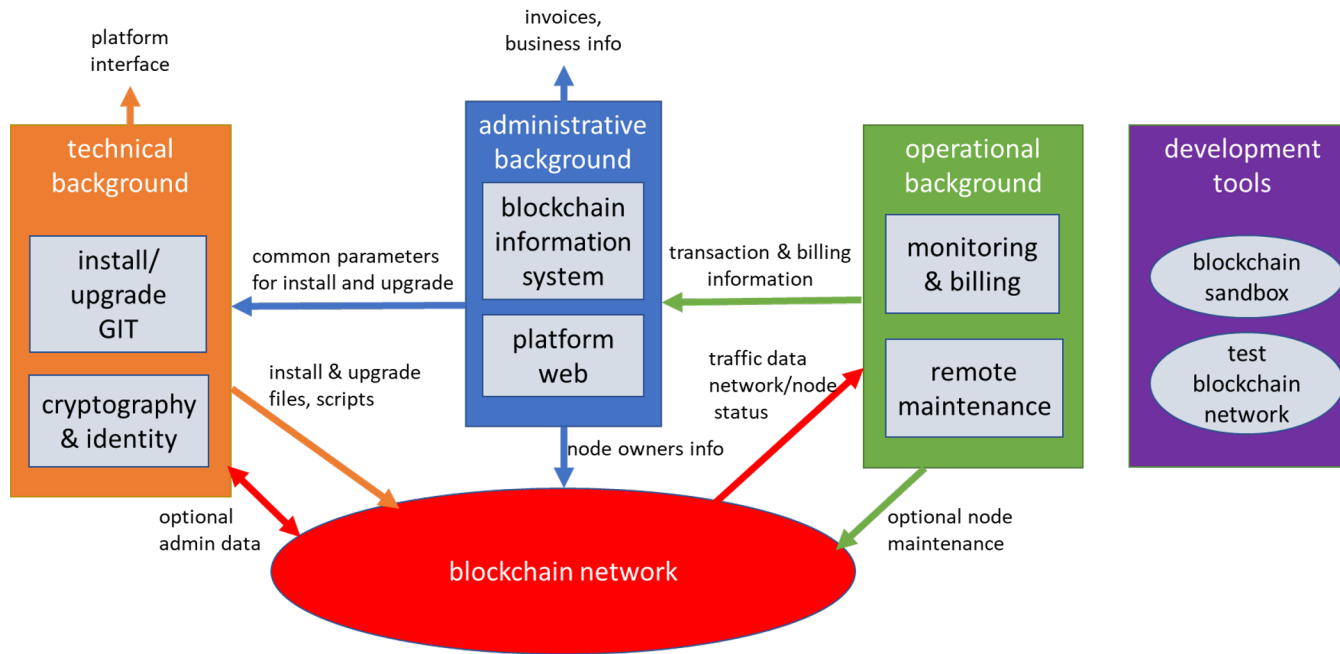**The company ELA Blockchain Services a.s. has been runnig an idustrial blockchain since 2019**

public list of nodes: www.blockchainotarius.cz

manufacturing companies

universities

industry services

IT companies

other businesses

lawyer's offices

30 nodes at corporate bodies:

- **Industrial companies:**
  IBM, ABRA, Exact Control, ZAT, FCC …
- **Lawyer's offices:**
  Rowan Legal, the leader in digital law, Cerny Legal
- **Inspection & certification associations:**
  TÜV SÜD, Czech
  ČIA – Czech Accreditation Institute
- **Government:**
  Czech Ministry of Industry and Trade
- **Professional associations:**
  Czech Chamber of Commerce, Confederation of industry and Trade
  Universities:
  Czech Technical University (CVUT), Tomas Bata University

We have certified tools and processes

platform interface

technical background
install/ upgrade GIT
cryptography & identity

common parameters for install and upgrade

install & upgrade files, scripts

optional admin data

invoices, business info

administrative background
blockchain information system
platform web

transaction & billing information

node owners info

operational background
monitoring & billing
remote maintenance

traffic data network/node status

optional node maintenance

development tools
blockchain sandbox
test blockchain network

blockchain network

Only blockchain supplier
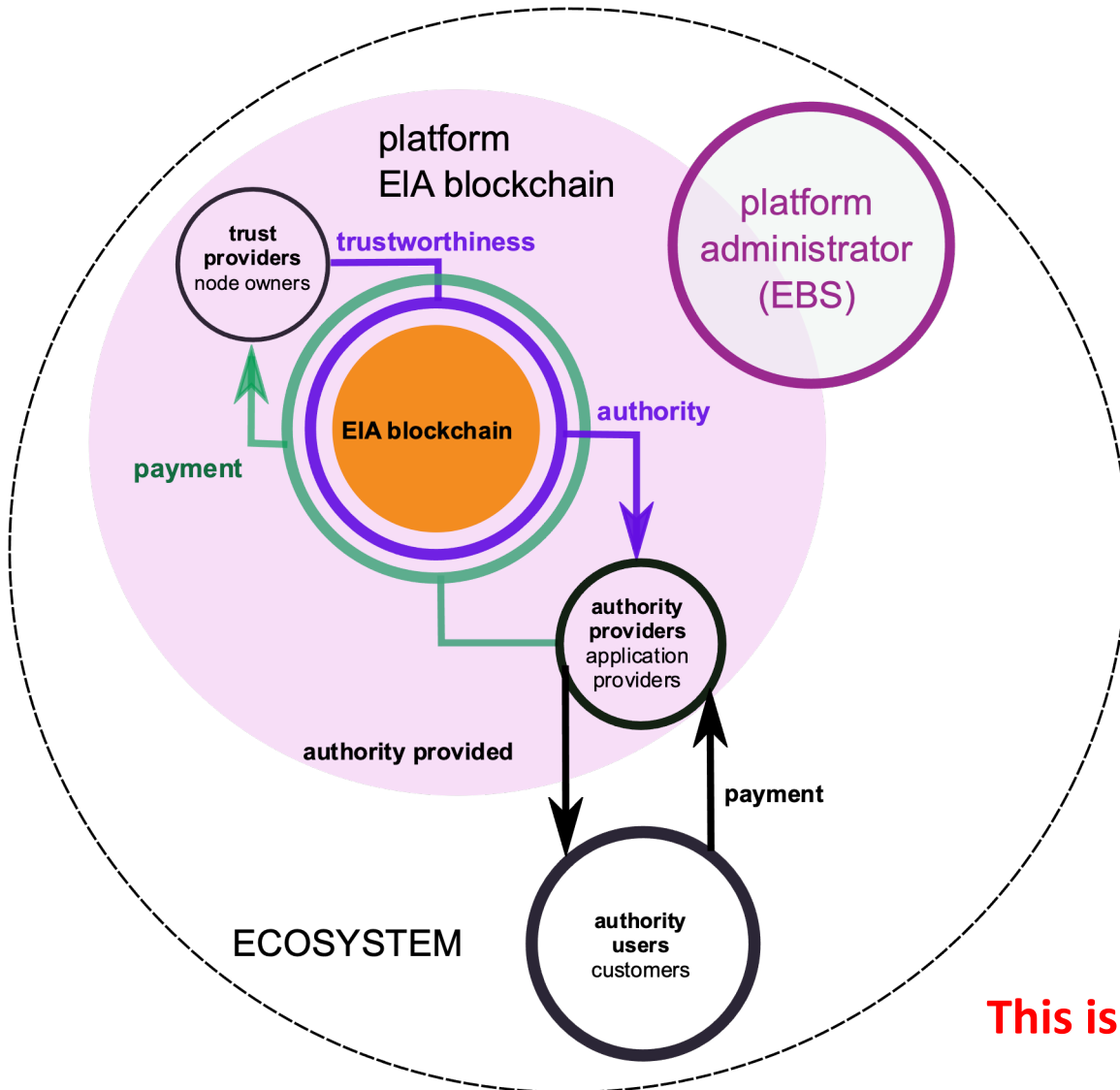certified with industry required certificates

- Ability to maintain a platform of independent blockchain nodes

- Infrastructure and QM management certified for cybersecurity

- Excelence in consortium-type blockchain based on Hyperledger Fabric

- Blockchain Notarius®, a basic notary-type service and application, installed on every node.

Platform business model

Trust providers (node owners) provide their trustworthiness

Blockchain converts a cloud of trustworthiness into distributed authority

Authority providers use blockchain authority in their applications

Customers use blockchain application for their business

Platform administrator maintais the platform, guarranties the independence of nodes and distributes payments.

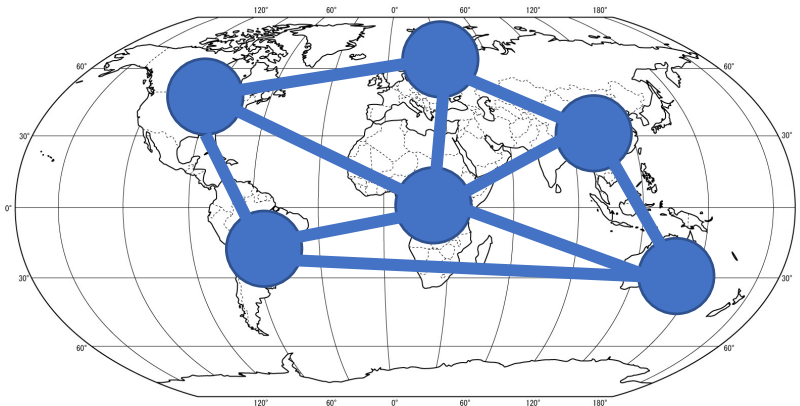**This is the core business of ELA Blockchain Services company**

We offer the true industrial blockchain

- ❑ **Industrial technology** - no relation to cryptocurrencies

    We use Hyperledger Fabric, an industrial branch of blockchain technology supported by IBM

- ❑ **Consortium-type blockchain** – no anonymous providers and users

    Blockchain network is in ownership of trustworthy, publicly known corporate bodies

- ❑ **Guaranteed independence** - the basic condition for creating a distributed authority

    We can administration of a blockchain without any breaking of node independence

- ❑ **Not only single blockchain, but platform** – create your own blockchain for your business

    Platform enables a simultaneous operation of more independent commercial blockchains

- ❑ **Delivered as it is used in the industrial world** – collaboration with specialists

    Standard delivery chain: system architect, solution provider, software developer

- ❑ **Certified supplier** – a guarantee of business and security compatibility

    We have been certified with ISO certificates accepted in the industrial world

Our vision is to build a platform consisting of hundreds of nodes in ownership of trustworthy corporate bodies over the world.

This platform will be a direct competitor to cryptocurrency blockchains like Ethereum Enterprise, mainly in the world of industry.

We are looking for the Partner / investor who can utilize a business opportunity in industrial blockchain and who can organize an international community of trustworthy corporate bodies to became node owners.

The window of the opportunity is just opening now:

From an enterprise perspective, the 'blockchain tourism' phase has passed and companies are beyond [simply] feeling the need to understand the underlying the technology details,"
says Chris Broderson, Deloitte Americas Blockchain Lab lead.

Thank you for your attention

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ELA Blockchain Services website (Czech + partially English)
https://www.elachain.cz/
Basic information about company and EIA blockchain project.

Blockchain Notarius (Czech, English, Chinese Traditional, Chinese Simplified)
https://www.blockchainotarius.cz/
The list of all nodes of EIA blockchain, an enter into public part of Blockchain Notarius application.

Blockchain Notarius on Advantech WISE-PaaS platform
https://portal-catalog-ensaas.sa.wise-paas.com/appInfo/Blockchain-Notarius/lang/en-us
Blockchain Notarius as on-demand service