Collaborating on multi-stakeholder processes

When we collaborate on processes that run outside of our own organization we communicate like we are still in the 00's.

And this produces unstructured data which is very hard to automate.
‘The Silo Problem’

Every organization processes the data into their own systems and databases, creating data silos.

Data silos are the top barrier for organizations to reach the next level of efficiency when collaborating on repetitive processes.

DATA-SHARING MATURITY

% of respondents who say their organization is very effective at data and intelligence sharing at various levels of the enterprise.

- Sharing within executive or management groups: 43%
- Sharing within small employee teams: 26%
- Sharing within functional groups or business units: 29%
- Sharing within the larger enterprise: 21%
- Sharing with their key vendors/suppliers: 15%
- Sharing with their digital ecosystem partners outside their industry: 14%

SOURCE: HARVARD BUSINESS REVIEW ANALYTIC SERVICES SURVEY, AUGUST 2018
So, why not use one central system?

...because trust outweighs efficiency
Then along came blockchain

LTO Network took this approach for unlocking a new level of efficiency through distributed business logic and data processing.

Facilitating immutable, trustless, verifiable, collaboration.
LTO NETWORK facilitates distributed data logic and data processing to notify actors on processes, while filling their systems with earlier submitted data. Creating streamlined, efficient operations.
Enabling trustless collaboration

All parties involved can benefit from data re-use, real-time updates on processes and automated compliance without having to rely on one party managing the system.
The processes that run in our hybrid blockchain are only visible for the parties involved.

**Private layer**
Communication of private data only visible for involved participants and apply on a single processes.

**Public layer**
Data is hashed on the public chain for data integrity purposes.
Every event creates a new block on the private chain, which is anchored on the LTO Network public blockchain.
## Enterprise fabric comparison

<table>
<thead>
<tr>
<th>Fabric</th>
<th>Security</th>
<th>Throughput</th>
<th>Setup Cost</th>
<th>Integration difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTO Network</td>
<td>Infinitely horizontally scalable</td>
<td>$</td>
<td>Very low</td>
<td></td>
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<tr>
<td>public chain (PoS)</td>
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<tr>
<td></td>
<td>Trusted third party (notary)</td>
<td>170 TPS</td>
<td>$$$$</td>
<td>Medium</td>
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<tr>
<td>Hyperledger</td>
<td>Endorsement (PoA)</td>
<td>2000+ TPS</td>
<td>$$$$</td>
<td>Hard</td>
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<tr>
<td>Quorum</td>
<td>Endorsement (PoA)</td>
<td>100 TPS</td>
<td>$$$$</td>
<td>Medium</td>
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</table>
8 Reasons Why integrators should use LTO Network

**Interoperability**
You want an instant transaction receipt

**Easy to integrate**
Your systems are linked in minutes

**Smart connectors**
Precooked integrations with SAP etc.

**Costs**
The most cost efficient solution

**GDPR compliant**
Encrypted & hashed proof of data

**Demo portal**
Get your white label demo portal

**Open source**
Get started with building instantly

**Enterprise Node**
Integrator reseller license model
Use case

Transfrontier Waste Transports in the EU
Use case overview

Short description:
To reduce the supervision costs related to European waste transportation, the Ministry wanted to combine blockchain technology with existing IT-systems. This way the inspection authorities can automate a significant portion of their tasks. This frees up knowledge and expertise for other important tasks that cannot be performed without human assistance (yet).

Objectives:
The PoC is meant to demonstrate that blockchain technology can be used to create efficiency and transparency within the cross-border waste transportation process in the EU. Besides, it is meant to reduce the supervision costs related to European waste transportation.

Blockchain Attributes:
- Permit requests are checked, verified and accepted through an artificial intelligence expert machine.
- Scales connected through the Internet-of-Things communicate weight to the process and the permit.
- Permit data is shared with all stakeholders and determines the next tasks in the process on the blockchain.
Predicted outcome

Applying blockchain technology will enable all government bodies and companies to get real-time verification of each step in the process. The project will be supported by two major waste recycling companies, the Dutch waste authority and the Flemish waste authority. The project will be applied to waste transports between The Netherlands and Flanders.

Stakeholders:

- Inspectie Leefomgeving en Transport Aanwezig van Infrastructuur en Waterstaat
- INDAVER
- Samen Maken We Morgen Mooier
- OVAM
- AVR.

Press:

- ComputerWeekly.com
- Sociable.co
Transfrontier Waste Transports in the EU: Bringing value by streamlining transportations in multiple jurisdictions

EU-pilot for 1,000 waste transports between Netherlands and Belgium

€14,- Cost savings per transport

€7,000,000 Total cost savings

(based on all 500,000 transports, calculations by Ministry of ILT)

Sustainable: Eliminated all unnecessary paperwork in the document-heavy process!
Video impression of the waste transport solution
Clients using LTO Network
Executive team

Rick Schmitz
CEO
Tax Lawyer, Ex-PwC and Co-founder of LTO Network. Member of ISO committee on blockchain standardization.

Martijn Migchelsen
CFO
Economist, Ex-PwC and Co-founder of LTO Network.

Arnold Daniels
Software Architect
Significant open-source contributor and lead on ProActive (acquired by Visma in 2018) and Cloud9 IDE (acquired by AWS in 2016).

Sven Stam
CTO
CTO of LTO Network. Artificial Intelligence and DevOps expert.

Martijn Broersma
COO
Operations manager, responsible for LTO Networks daily operations for the past three years.
Join our ecosystem!

BOOK A DEMO

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