



LTO NETWORK

**Independent
software vendors**





OUR WORLD RELIES ON **TRUST**



**But often
we find
ourselves
missing
that trust**

Unlicensed practices

Diploma/certificate fraud

Construction casualties

Invoice fraud

Identity theft

Revoked licenses

Malicious representation



The typical organization loses
5 percent of its annual revenue
to fraud each year.

When applied to the 2017
estimated Gross World Product
of \$79.6 trillion, this translates
to potential global fraud losses
of up to **\$4 trillion**.

2018 Report to the Nations Global Study
Occupational Fraud and Abuse





**If proof becomes
important, it's often
already too late.**

Prevention > Cure

Proof Engine

LTO Network's Proof Engine allows you to secure any digital data against manipulation, protecting businesses against digital fraud.

Our Proof Engine is easy to integrate in existing IT infrastructures and connect to any (legacy) system through an API.

Add a layer of trust to invoices, medical records, emails, documents and other digital data in a matter of minutes at a fraction of the costs.

PARTIES USING THE LTO NETWORK PROOF ENGINE





Inspection Reports



By integrating LTO Network's Proof engine across the Capptions platform, we are able to give blockchain a mobile face. For Capptions, adding blockchain to our applications is something that we deem helpful for our clients.


Our clients are dealing with environmental inspections carried out by the Dutch government, oil terminal inspections for parties like Fujairah Oil and the safeguarding refuelling of thousands of aircrafts at Schiphol airport. Our inspection app handles sensitive and vital data, so immutability is critical. With the implementation of LTO Network we're able to let multiple stakeholders monitor and provide one, but decentralised, secure audit-trail in real-time, at every stage.

— Jonathan Stolk - CEO - **Capptions**



Capptions

AVIATION - Before-Takeoff Checklist
#4731: Pete "Maverick" Mitchell



Pete Mitchell
Top Gun | Pete.Mitchell@USAF.gov

Pilot Full Name and Signature
Pete "Maverick" Mitchell

Location
Marconistraat 12, 3029 AK Rotterdam, Netherlands

Started
03/07/2019, 4:21:45 PM

Completed
03/07/2019, 4:48:33 PM


SHA512 Security hash
02436766a9c23a757022727958a0c06d4f28a73c32ab381095c1d05763358ab7b1c136f791d11182c746a9c233827c0f6a1370d78f6d0f38e2284


Blockchain Proof
<https://explorer.lto.network/transaction/FrWtHG7emQS6NQRHLKt5kAkmFDUFqnn2aohSN4dNXTxj>

Identification

Pilot Full Name and Signature

Pete
"Maverick"
Mitchell





Aircraft ID

F-14A

Which Checklist?

Before
Takeoff

By Capptions for Trial | AVIATION - Before-Takeoff Checklist - #4731: Pete "Maverick" Mitchell

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Document ID: 9KR1ZRYZ

LegalThings

Document name:

Non Disclosure Agreement (ENG).pdf

SHA256 security hash:

ee78e8230af6cd0295275bd76751782e96cca385f8a8a43627b573e51e3fc5f

Sent on:

June 11, 2019, 11:46 a.m. (UTC)

From:

SignRequest <no-reply@signrequest.com> on behalf of

(martijn.broersma@firm24.com)

To:

hello@seanlangedijk.com,

Subject:

LegalThings has sent you a SignRequest

Message:

Please sign this document.

Kind regards,

LegalThings

IP address:

52.16.126.126

User agent:

GuzzleHttp/6.2.0 curl/7.53.1 PHP/5.6.35

Blockchain timestamp proof:

LTO Network

<https://explorer.lto.network/transaction/C7U8micN87Rn5KinDVEwWLDCEBNBKNBM1FPyUatoCG3U>
martijn.broersma@firm24.com

Email address verification:

Not verified by SignRequest

hello@seanlangedijk.com

Email address verification:

Verified by SignRequest

Signature added, page 2:



IP address:

46.244.105.58

User agent:

Mozilla/5.0 (Macintosh; Intel Mac OS X 10_14_5) AppleWebKit/

537.36 (KHTML, like Gecko) Chrome/75.0.3770.80 Safari/

537.36

Document signed:

June 11, 2019, 11:49 a.m. (UTC)

diederick@ltonetwork.com

Email address verification:

Not verified by SignRequest



Digital Signature Manipulation

“Using the blockchain for Proof-of-Existence for electronic signatures just makes sense and is already happening. When we researched blockchain platforms, LTO Network stood out in terms of speed, set-up, and capabilities. We are able to include the blockchain transaction identifier directly into our signing logs which are circulated upon signing without the need to wait minutes for confirmations.

Next to that, the potential of creating decentralized workflows did the trick to add the LTO Network solution as an option to our users.”

— Michael Krens - CTO - **SignRequest**



This file is authentic and unchanged

☆☆ Level 2 V-ID Validation (advanced security level)

V-ID hereby certifies that the scanned data fingerprint matches the V-ID fingerprint in the blockchain. The V-ID fingerprint of this file was first included in the LegalThings One blockchain on April 1st 2019 10:55 by LTO Network, represented by Marnix van den Berg (V-ID) and Rick Schmitz (LTO Network).

The V-ID fingerprint of this document is the first V-ID hash that is validated in the LTO Network Blockchain. You can check the [corresponding transaction here](#).

More info

<https://about.v-id.org/lto>

verify another file

learn more about V-ID

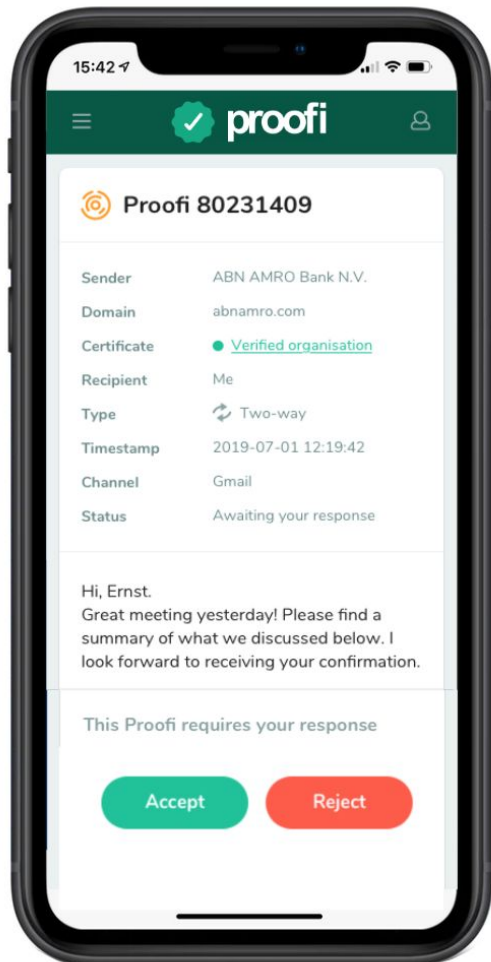
Document validation technology

“V-ID secures any digital file against unlawful manipulation using the LTO Network blockchain, protecting businesses against digital fraud, and letting people focus on innovation.

After you have downloaded a validated file, you can verify it at the Verification Terminal at v-id.org. If you alter the contents in any way, the file will lose its verified status and the Verification Terminal will detect it. You can also print the file and scan the QR code. The digital version of the validated file will show up on your phone, so you can visually compare the printed contents with the original file.”

— Marnix van der Berg - CEO & Founder - **V-ID**





Trust in online environments

Our world relies on trust. Yet, we still can't guarantee trust in the opposed party in online business transactions nowadays. We increasingly use communication apps to do business, as commercial transactions are instant, global, and 100% digital.

With Proofi users can be sure that:

- They are interacting with the right company
- They are dealing with an authorized contact person
- The data objects that are exchanged haven't been tampered with

— Harm Bavinck - Stanford Codex Fellow - **Proofi**





Link your own -or your independent software vendor's system- to a node in order to receive proof receipts



Set up your own node on Windows, Linux, Mac or use AWS, Red Hat, Azure, etc.



The global LTO Network validates all transactions

LTO Network
Proof of Existence



How does it work?

Why
organizations
should use
LTO Network
for Proof-of-
Existence

LTO Network
Proof of Existence



Fast

You want an instant
transaction receipt

GDPR compliant

Encrypted & hashed
proof of data

Ease of use

Your systems are
linked in minutes

Decentralized

Trusted verification by
dozens of nodes






Costs

The most cost
efficient solution

Usable as SaaS

Just buy credits and
start immediately

Proof-of-Existence fabric comparison

Fabric	Type of network	Network sustainability	Decentralized / Permissionless	Response time	Anchoring Optimization	Fees / Costs
 TIERION	Centralized application on top of Bitcoin and Ethereum, acting as a "middle man" for PoE.	No revenue model, no sustainability, unclear token model, burning ICO funds.	✗	5400s	✓	Free (limited) / Enterprise license
 FACTOM	Permissioned set of nodes on top of Bitcoin, acting as a "middle man" for PoE.	Subscription based model with recurring costs. Limited product flexibility.	✗ / ✓	600s	✓	0.20 USD
  ethereum	Permissionless public blockchains, primarily focusing on financial transactions.	Community-driven. Costs are extremely volatile and negatively influenced by network success.	✓	30s - 900s	✗	0.10 USD
	Permissionless public blockchain optimized for anchoring.	Combined community and subscription based. Upgradable to additional functionality. No recurring fees when staking.	✓	1.1s	✓	0.02 USD

Company summary

Clients and adoption



It's not just a promise in a blockchain white paper..



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.



LTO NETWORK

Join the adoption movement!

BOOK A DEMO



LTO.network



t.me/LTONetwork



[@LTONetwork](https://twitter.com/LTONetwork)



rick@ltonetwork.com

