



EnigioTime

Providing Proof Of The Truth

agenda

- company and services
- authenticated Digital Originals
- two use cases
- Q&A

our mission

- with the help of technology, support a world where **truth** can prevail
- offer innovative solutions to ensure **consistency**, **integrity** and **traceability** of digital information in time, as well as protecting it from **manipulation**
- create independent proof that cannot be manipulated showing what happened, when and in what order
- all the above by delivering trusted e-services, compliant with the eIDAS regulation

enigio time

- innovation driven company founded in Stockholm 2012
- tech-competence: System development, Cryptography, Distributed Ledger Technology (DLT), e-Archive
- trade-competence: Bank & Finance, Medical, Archives, Music-industry
- proprietary solutions and services developed on DLT based technology (blockchain and linked schemes)
- approved Swedish patents and 3 World PCT patent applications approved. Two new Swedish patents filed.
- active as collaborators in the global research project InterPARES Trust



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our offerings

offerings

- digital Notary Service
- long term Preservation
- digital Original - one and only one
- advisory services within the area



digital notary service

an independent and indisputable IT solution to prove:

- what happened
- when did it happen
- in what order did it happen

e.g. cloud integrity, record integrity, IoT, log files, prove Copyright, secure photos, film, etc ...

- Enigio's solutions do not expire in time like PKI and other certificate based trust-services



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long term preservation

- SaaS (or Product)
 - preparation for e-Archive (migration to long term preservation formats)
 - closing down of old business systems and saving data
 - securing data from manipulation
 - easy to export to other e-Archive system



authenticated
digital originals

the issue

- further digitalization of loan origination, creating **digital promissory notes** and other documentation for the mortgage market

(Authenticated originals are required in at least one step in the lending process in most European countries)

- Trade Finance – documentation for Letters of Credit
 - > eIDAS provides legal support
 - > Distributed Ledger Technology (DLT) is a key enabler



legal framework for promissory notes (northern Europe)

- the legal term “original” – defined negatively in the legislation addressing counterfeit and fraud
- the law defines requirements of an original, not its medium
 - the law is **technology neutral**
 - no need for a physical medium, such as paper, parchment or cow-hide for that matter
 - promissory notes must be issued in **one and only one single original** to be legally enforceable in the Nordics and many other countries
- our **mission** in creating **digital bearer instruments** was to:
 - define a mechanism to **separate an original from a copy**
 - ensure that the **original instrument** can be **transferable**



requirements

- a digital document **counterfeit safe**
- with certainty distinguish the **single original document** from a copy
- document content can be kept **confidential**
- the original should be able to be **stored by the holder or in custody** of his or her choice
- ownership of originals should be **transferred safely**

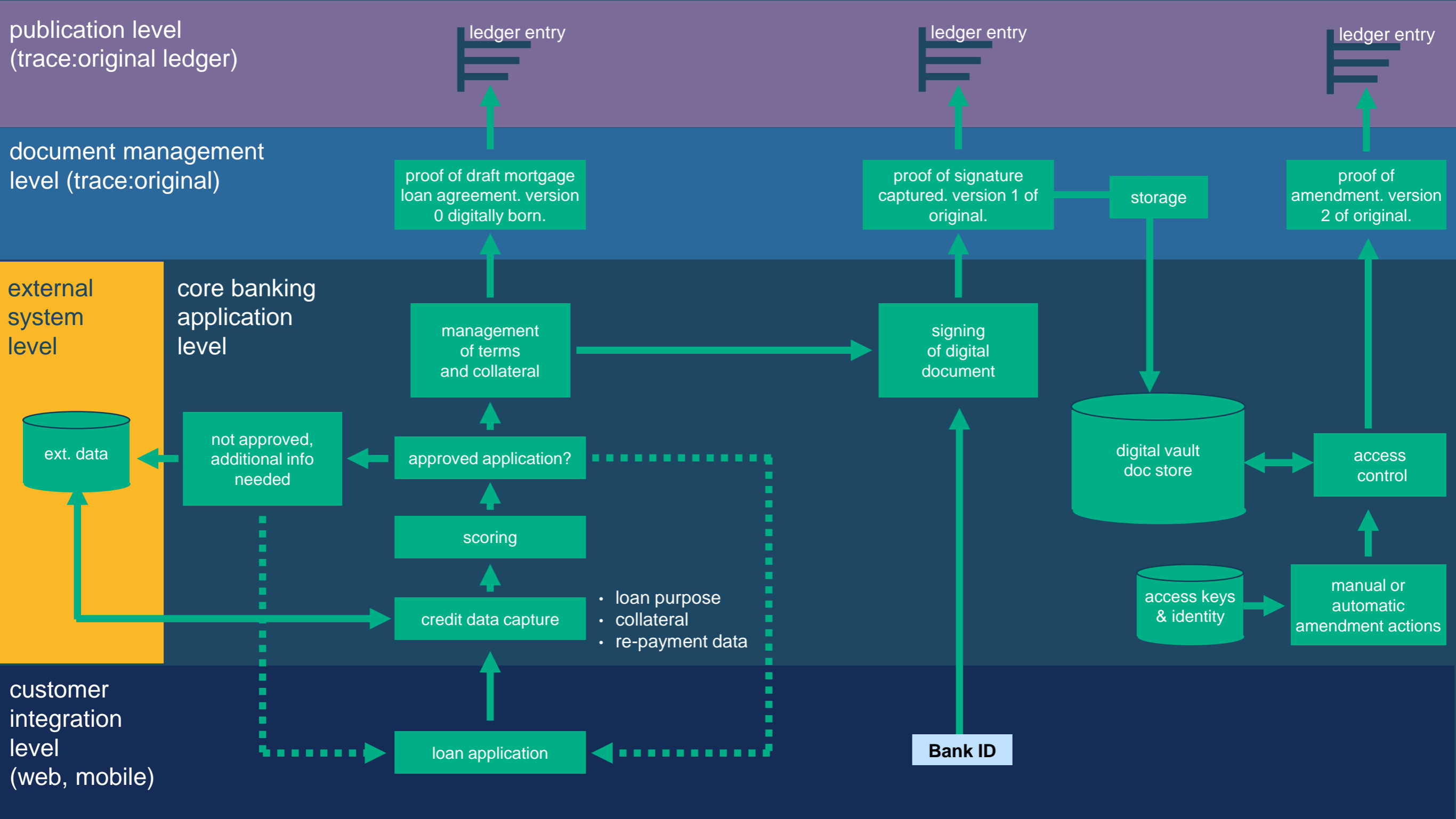


features

using **trace:original** you are able to:

- **create** a digital original - **one and only one**
- maintain content **confidentiality** (stored by holder)
- prove **ownership** of a digital original
- **amend** data to a digital original
- create and **distribute copies** of a digital original that will be identified and authenticated as a copy of the original and not the actual original
- **transfer ownership** of a digital original
- **invalidate** a digital original
- and more...





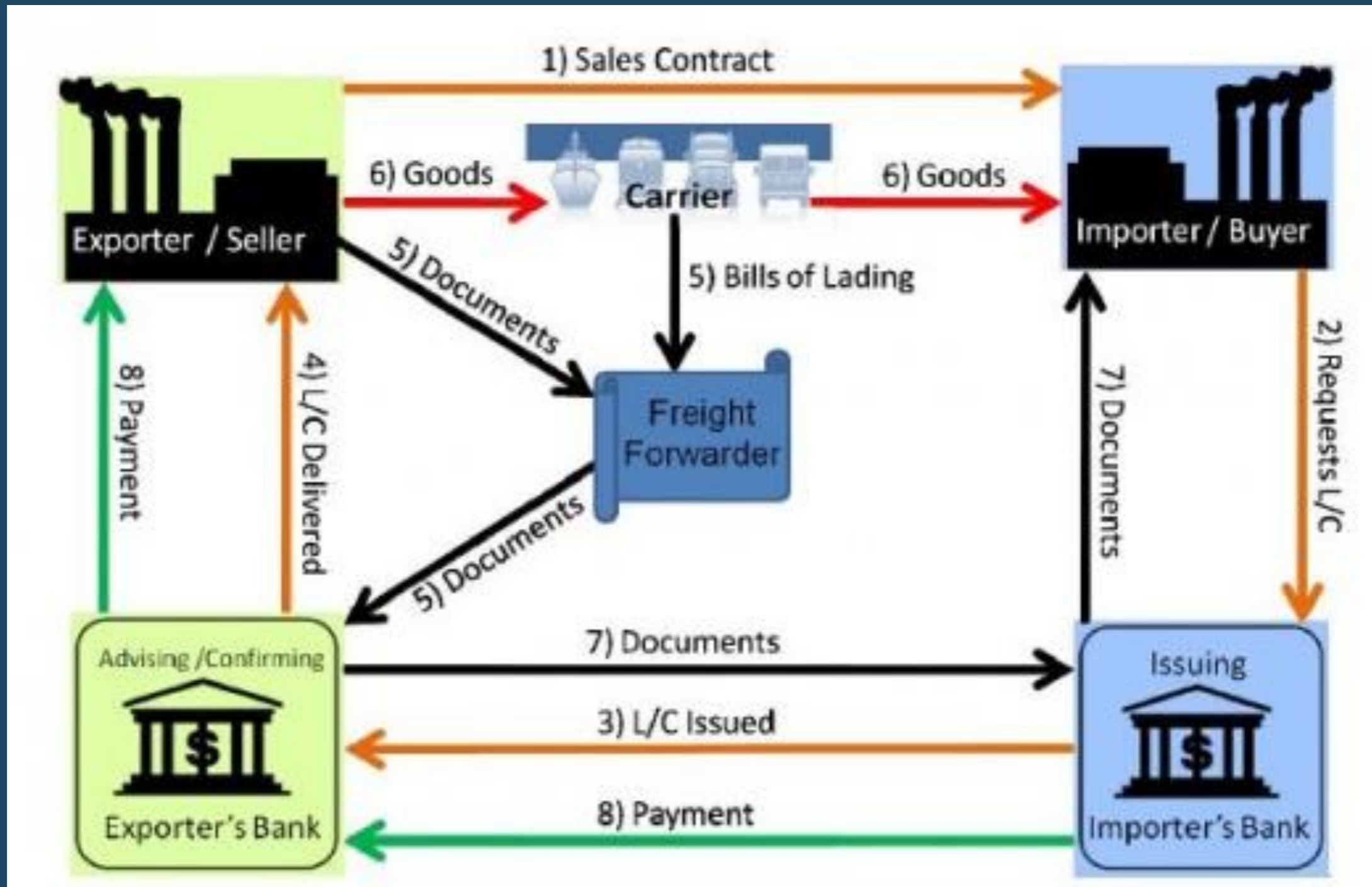
benefits

- a banks **cost** of handling physical loan deeds can be **reduced by 80 – 90 %**
- enables a full **loan origination** process through the **internet bank**
- environmental - **eliminates paper** in the process
- simplifies **GDPR** compliance
- creates **better consumer protection** through an incorruptible audit trail
(<https://youtu.be/hxUAntt1z2c>)



trade finance

letters of credit – flow chart



current handling of L/Cs

- a slow paper based process – could significantly be mitigated through digitalization
- often dependent on courier services to speed up the process (Thousands of tons of paper constantly in orbit with FedEx , DHL and others)
- forgery is a significant risk in many regions

e.g. Bills of Lading are issued in three original documents to: the bank, the transporter and the importer.

These are originals and all “bearer instruments”



benefits compared to paper

- document **fraud** will be **eliminated**
(except in cases of digital ID theft)
- the **issuing** process will be **shortened** by several days
- environmental effects:
 - thousands of tons of paper in **air freight and land transport** will be **eliminated**
 - the use of **paper is eliminated**
- **cost** of managing L/C documentation **lowered** by hundreds of Euros per L/C



trace:original will revolutionalise digitalization of record handling that requires an **original document** in the **traditional sense** where a central repository is not used

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