Digital Negotiable Instruments (DNI) Initiative

ESCAP / ICC / ADB webinar on
blockchain technology for cross-border trade

André Casterman, Founder, Casterman Advisory and
Chair Fintech Committee

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The DNI Initiative helps incumbents and alternative funders position themselves for the future.

The aim of the DNI Initiative is to bring bills of exchange (B/E) and promissory notes (PN) into the digital world. We achieve this with advanced DLT-based document technology which brings the highest levels of security and certainty of enforceability, as well as regulatory advocacy.

<table>
<thead>
<tr>
<th>Market dynamics</th>
<th>What’s in it for banks</th>
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<tbody>
<tr>
<td>Market evolution</td>
<td>The differentiation opportunity</td>
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<tr>
<td>New technology proposition</td>
<td>The business opportunity</td>
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<tr>
<td>Client needs</td>
<td>Enhanced security and certainty of enforceability</td>
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<tr>
<td>New scalable market practice</td>
<td>Increased origination</td>
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- **DNI Initiative**
  - Digital trade
  - DLT-based document technology
  - Paperless negotiable instruments
  - Digital bills of exchange and promissory notes
Centralised model - platforms

Banks and clients sign up to a common document platform to exchange originals

A digital original is only valid within the chosen platform

Document ownership and transfer of ownership managed by the chosen platform

Distributed model - DLT

Negotiable instruments and guarantees are produced, owned and secured digitally by banks

The digital originals are valid across institutions and platforms

Document ownership and transfer of ownership performed digitally via any electronic channel

DLT offers new opportunities for digital original documents across institutions and platforms
## MLETR and dDOC – the needed combination for electronic negotiable instruments

<table>
<thead>
<tr>
<th>Nature</th>
<th>UNCITRAL - MLETR</th>
<th>DNI Initiative - dDOC specifications</th>
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<tbody>
<tr>
<td>Nature</td>
<td>Model Law</td>
<td>Technology framework for authoritative documents</td>
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<td>Objective</td>
<td>To enable the legal use of electronic transferable records both domestically and across borders. The MLETR applies to electronic transferable records that are functionally equivalent to transferable documents or instruments.</td>
<td>To enable the trusted use of electronic original documents both domestically and across borders. The dDOC framework applies to authoritative documents that are functionally equivalent to paper-based authoritative documents, and that are verifiable by and transferrable amongst businesses and counterparties.</td>
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<tr>
<td>Industries</td>
<td>Financial Services – Trade Finance</td>
<td>Any industry with current focus on logistics &amp; financial services</td>
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<td>Approach</td>
<td>According to the MLETR, an electronic transferable record is functionally equivalent to a transferable document or instrument if that record contains the information required to be contained in a transferable document or instrument, and a reliable method is used to: (a) identify that electronic record as the electronic transferable record; (b) render that electronic record capable of being subject to control from its creation until it ceases to have any effect or validity; and (c) retain the integrity of that electronic record.</td>
<td>According to dDOC, electronic original documents are represented as files that can be produced by entities and transferred to any party over any channel and processed by any technology solution. The dDOC files are: (1) Produced using Ricardian contracts, human- and machine-readable data interchange format (JSON) and cryptographic key pairs (2) Electronic signatures and time stamps (3) A public distributed ledger to notatise state and ownership of the electronic original document.</td>
</tr>
<tr>
<td>Benefit for Trade Finance industry</td>
<td>Enforceable digital negotiable instruments: bills of exchange, promissory notes and bills of lading</td>
<td>Natively digital negotiable instruments that are verifiable, traceable, manageable without the need for parties to agree on use of a common eco-system or platform</td>
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## Jurisdictions consistent with MLETR

<table>
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<th>2019</th>
<th>2021</th>
<th>2022 (ambition)</th>
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<tbody>
<tr>
<td>Bahrain</td>
<td>Singapore</td>
<td>Abu Dhabi</td>
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<tr>
<td>[Flag of Bahrain]</td>
<td>[Flag of Singapore]</td>
<td>[Flag of Abu Dhabi]</td>
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**DNI Initiative**
Göran Almgren, CEO of Enigio:

“We are confident that our DLT-based trace:original solution provides the most effective upgrade path from physical documents to digital originals, as our technology not only mimics today’s physical documents but also offers the highest levels of security, integrity and traceability. Like paper, trace:original documents can be stored on any media and transmitted via any existing or future channel as the solution is open to all and doesn’t require participants to join an ecosystem or digital island.”
DNI Initiative - dDOC specifications can be applied to a variety of trade-focused market initiatives

- ICC Digital Trade Standards Initiative (DSI)
- ITFA
- BAFT DLPC
- BAFT
- United Nations Commission on International Trade Law (UNCITRAL)
- DNI Initiative
- dDOC specifications
- A public DLT-based technology framework for interoperable and traceable e-originals
- Any industry or proprietary initiatives defining business practices and document formatting requirements
- Carriage of Goods by Road (CMR)
- Railway Consignment Notes
- Warehouse Receipts
- Electronic Bill of Lading (eBL)
- Electronic Sea Waybill
Enigio’s trace:original - the public DLT is used as a Notary Service

Private Data on a file
- Security and ease of integration

Public DLT as notary service
- Convenience and transparency
Welcome to the ITFA dDOC Notary Service demo

Here, you can verify and manage existing trace:original documents.

- **I HAVE A COPY**
  - **Verify Document**: Select a trace:original or proof of possession document to verify
  - **Request Original**: Select a trace:original document to request possession of the original

- **I HAVE AN ORIGINAL**
  - **Manage Original**: Select a trace:original document and its corresponding private key to make amendments, transfer or invalidate it
dDOC Notary Service demo portal – verifying a dDOC document
Example of integration between Enigio, China Systems and Traydstream

Public DLT – Industry-wide lifecycle tracking of negotiable instruments

Network Interface

Payments application

Middle-ware

TF application

e-Banking

Clients

Payment Screening

Trade Document Compliance & Processing

Bank’s own (internal or cloud-based) transaction processing systems
The ITFA Manual on Digital Negotiable Instruments (version of June 2021) is available from the ITFA web site Member Area:

https://itfa.org/member-area/
Fintech Committee

“Automating trade origination and distribution”

More info https://itfa.org/about-us/functions/fintech-committee/
Want to engage? acasterman@c-advisory.eu