Supply chain on the blockchain

BBILLER.com Project Description

Ottawa Meetup - March 7, 2018
Collab Space, Ottawa, Canada

This presentation is not intended to give any financial advice regarding risky ventures.

Presenter: G. Ken Holman (BBILLER advisor)

Chair, OASIS UBL Technical Committee
- Editor, OASIS Universal Business Language
- Editor, OASIS Business Document Naming and Design Rules

Chair, OASIS Code List Representation Technical Committee
- Editor, OASIS Context/Value Association specification

Canadian Chair, ISO TC154 - Documents and processes

Member, OASIS Business Document Exchange (BDXR) TC
- Editor, OASIS/CEFACT Exchange Header Envelope

Member, ISO/IEC JTC 1/SC 32/WG 1 - eBusiness
- Editor, ISO/IEC 15944-20 - Linking BOV to FSV

Member, UN/CEFACT Methodology and Technology

Founding chairman of the XML Conformance Committee (1997-1999)

http://CraneSoftwrights.com/bio https://www.linkedin.com/today/author/gkholman

Presentation assumptions

What I'm not going to tell you because I assume you already know is:

- what a blockchain is (a distributed ledger technology)
- what a smart contract is (computer code running on a blockchain)
- what a commercial invoice is (a demand for money in payment)

What I am going to talk with you about is:

- a global project implementing the support and use on the blockchain of supply chain documentation in the fulfilment of business processes
- addressing an existing global requirement for anyone wanting to use blockchain technology rather than what they are already using today

I assume you do not suffer insomnia

- the project is exciting but the subject domain is boring (commonplace)

Addressing the global needs of supply chain

Business document requirements can be grouped in two major baskets:

B2B business processes

- **Pre-award Procurement**
- **Post-award Procurement**
- **Logistics and Transportation**
- **Payments and Finance**

Internet of Things

- **asset tracking**
- **provenance**

Addressing the global needs of supply chain

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Question to be answered: How to address these using blockchain technology in place of technologies already in use today?

BBILLER.com - A Distinctive DAO Style

Project participants drive the direction and actions of the organization

- **participants possess BBILLER tokens to influence behaviours**
  - **available through pre-sale discount period, ICO period, open exchange trading**

Codified democratization mechanics: BBILLERBALLOT contract

- **voting based on BBILLER tokens uses a smart contract for tallies**
  - **formally addresses the "Howey Test" that would otherwise distinguish it an investment**

The currency of the system for end users is another minted token

- **users buy BILL tokens and spend them to pay for contract gas**

Margins from all user transactions accumulate in project value

- **BBILLER holders can vote to disburse revenues and/or re-invest them**

MVP and Proof of Concept

Blockchain solution for a simple business process:

- **simple invoice presentment from supplier to customer**
  - **invoice can be in any format, e.g. PDF, Excel, UBL XML, CII XML, cXML, JSON, EDI, etc.**
- **provision for simple invoice clearance**
  - **third-party authorization (e.g. a tax authority)**
- **provision for simple invoice factoring**
  - **discounted sale of unpaid invoice to a third party for collection**
- **dispute handling and payments handled out-of-band**
  - **initial focus is solely on the document information presentment**

Soon to follow:

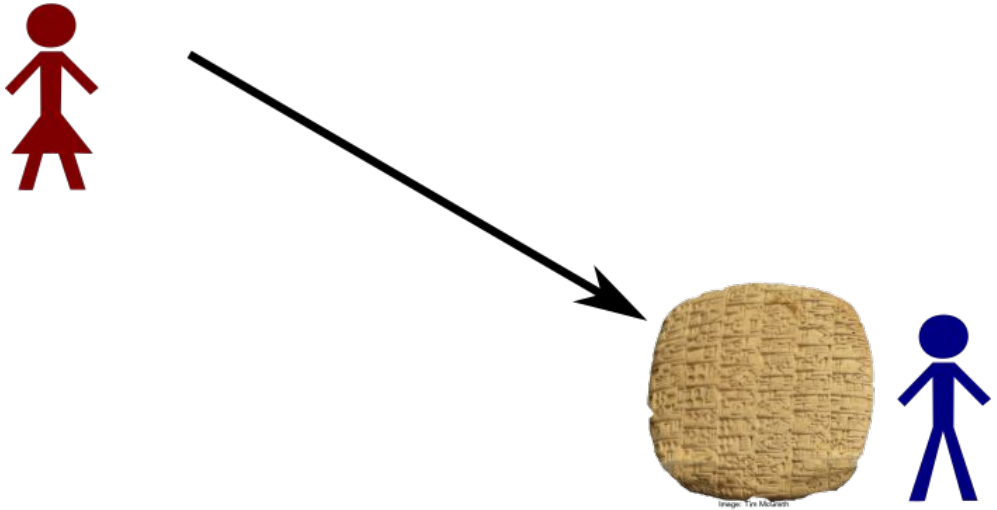
- **payment on the blockchain with crypto**

***MVP: Minimum Viable Product**

Business documents: tablets to blockchain

Document presentment history 1: cuneiform tablet

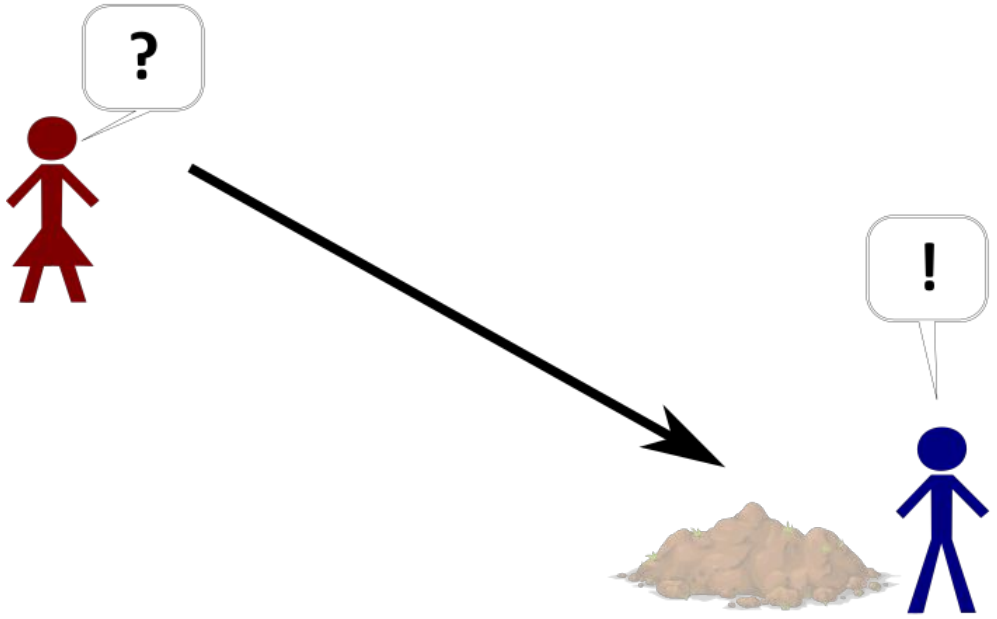
- the image is a rock-hewn business document (inventory record) from Mesopotamia from around 3,500BC carved with cuneiform runes



Business documents: tablets to blockchain (cont)

Document presentment history 1: cuneiform tablet

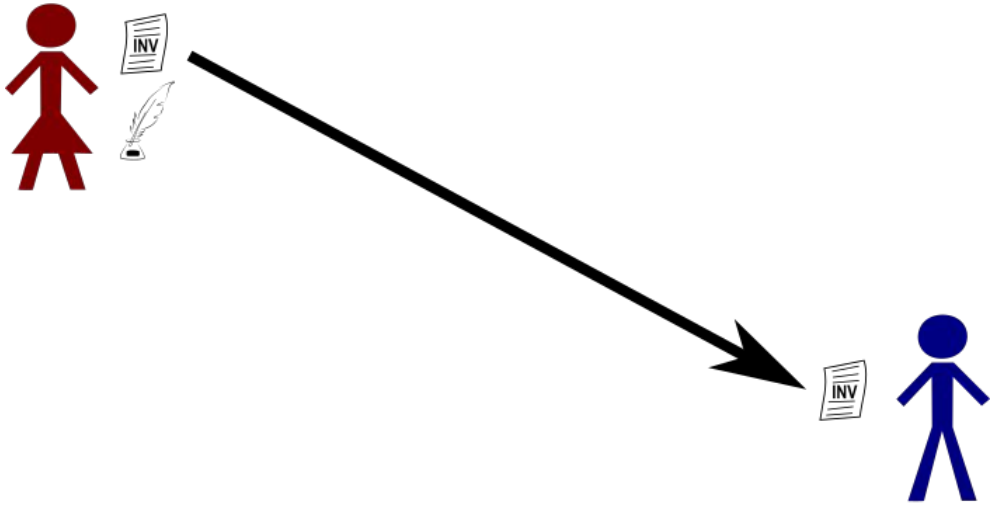
- they don't all last like the one from the British Museum
- no way to communicate the status or feedback regarding accepting the document information or acting on it



Business documents: tablets to blockchain (cont)

Document presentment history 2: paper

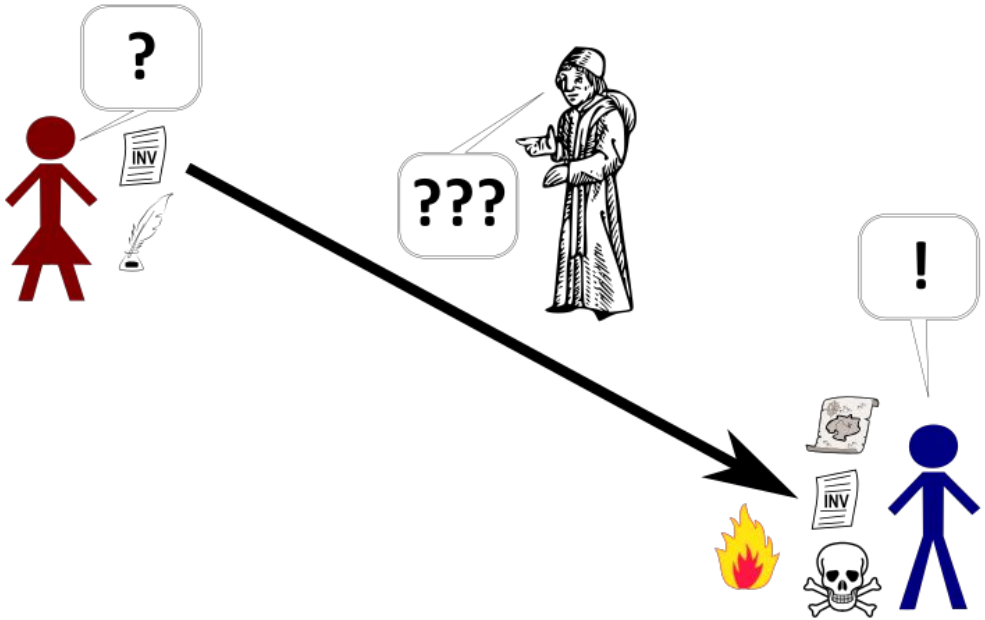
- paper is easier to use than stone, but each document is individually made



Business documents: tablets to blockchain (cont)

Document presentment history 2: paper

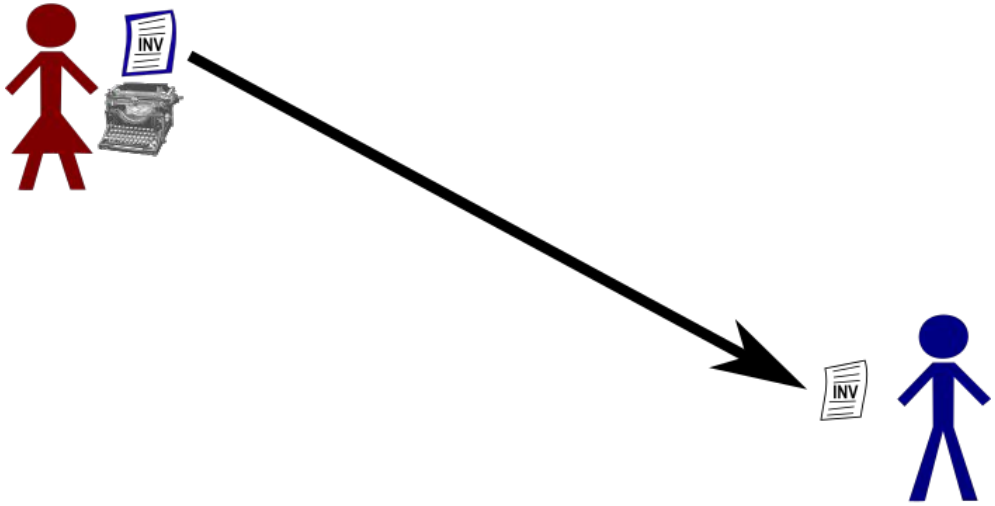
- no feedback on the status of the document
- could not be suitable:
  - lost
  - destroyed
  - corrupted
- if an auditor is presented with different versions, which is the "correct" one?



Business documents: tablets to blockchain (cont)

Document presentment history 3: the CC (1801)

- typewriters (1868) make a duplicate at the time of creation and send the duplicate
- replaced eventually with photocopying (1959)



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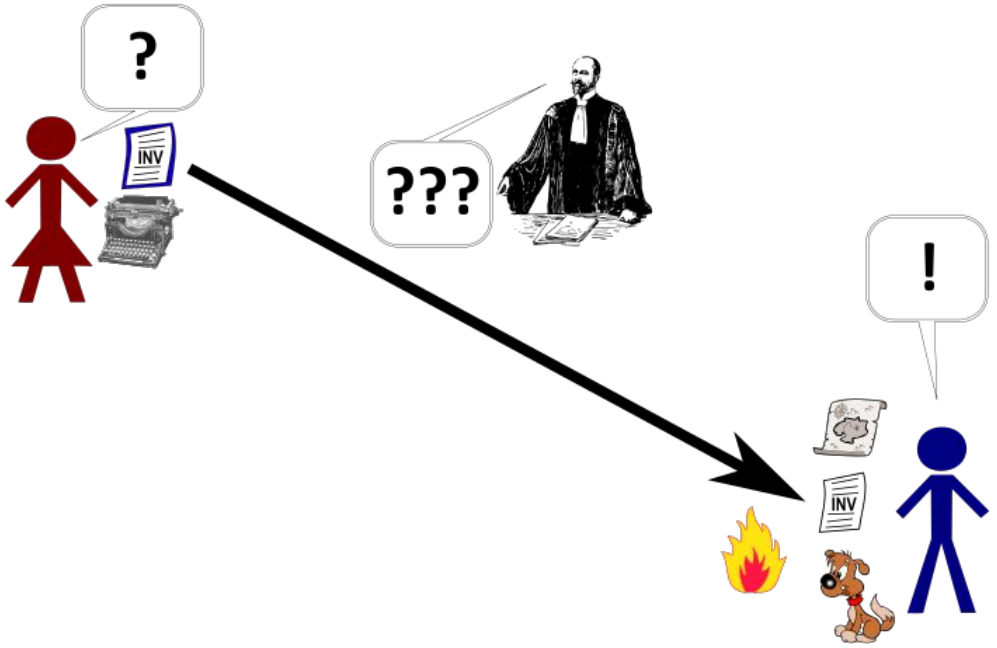
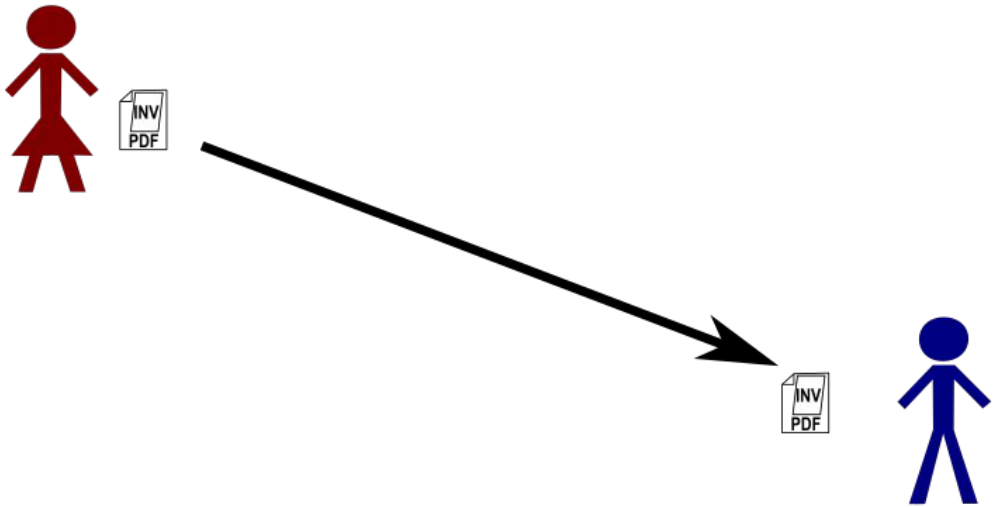


Business documents: tablets to blockchain (cont)

Document presentment history 4: Electronic Direct - e.g. PDF (2-corner model)

- electronic representation of paper in a PDF file (1993)
- can transmit a copy and keep the original

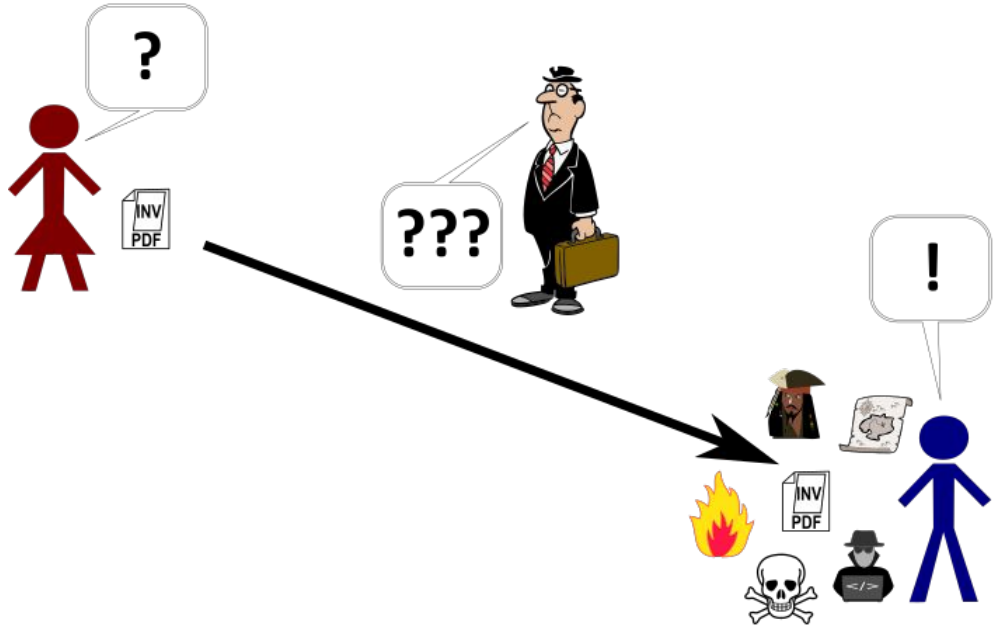


Metaphor: hand-delivery

Business documents: tablets to blockchain (cont)

Document presentment history 4: Electronic Direct - e.g. PDF (2-corner model)

- no feedback on the status of the document
- could not be suitable:
  - lost
  - destroyed
  - corrupted
- which copy is considered true by third parties?

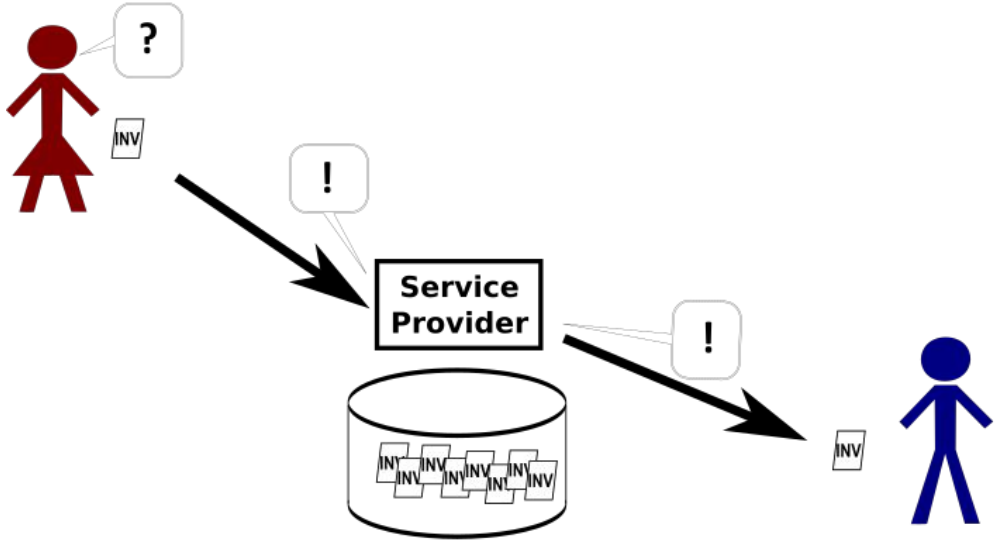


Metaphor: hand-delivery

Business documents: tablets to blockchain (cont)

Document presentment history 5: centralized network (3-corner model)

- feedback is available on the status of the document
- centralized store (implies centralized control)

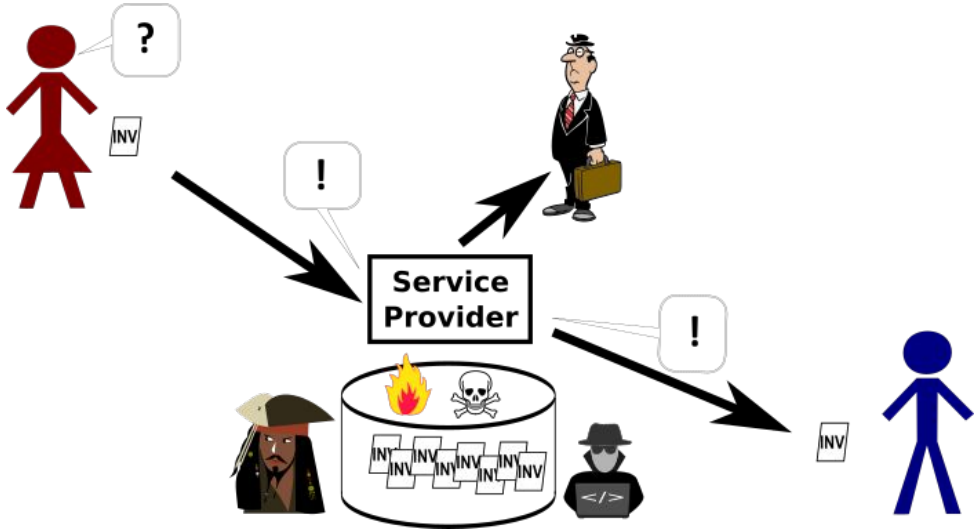


Metaphor: courier delivery

Business documents: tablets to blockchain (cont)

Document presentment history 5: centralized network (3-corner model)

- could not be suitable to have information centralized:
  - stolen
  - destroyed
  - corrupted
  - hacked
- service provider could change policies and prices
- can disenfranchise user groups

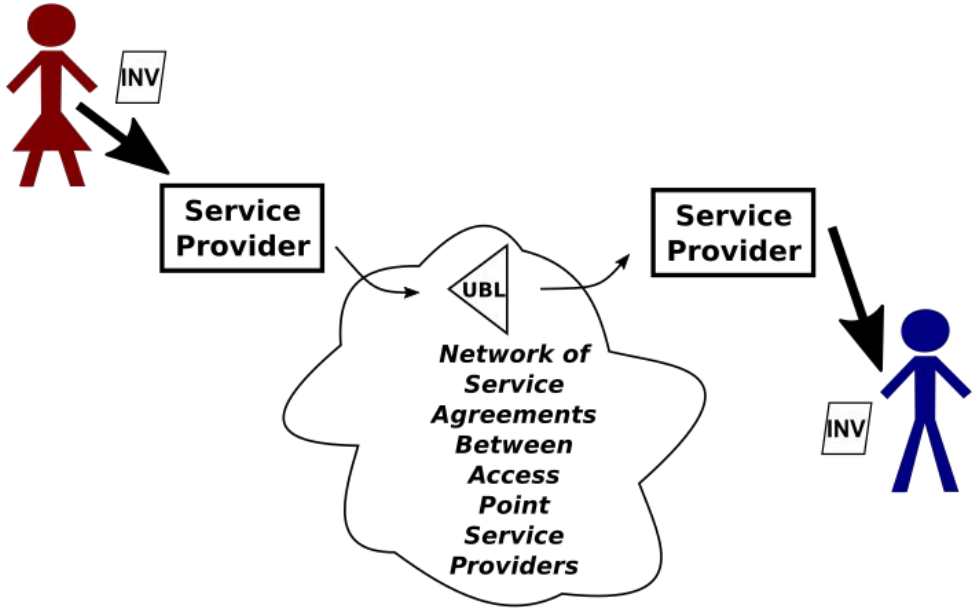


Metaphor: courier delivery

Business documents: tablets to blockchain (cont)

Document presentment history 5: 4-corner model network

- service provider access points transmit and may translate a common network format into private user formats
- the best non-blockchain approach to the problem



Metaphors: long-distance phone call, international postal mail

Business documents: tablets to blockchain (cont)

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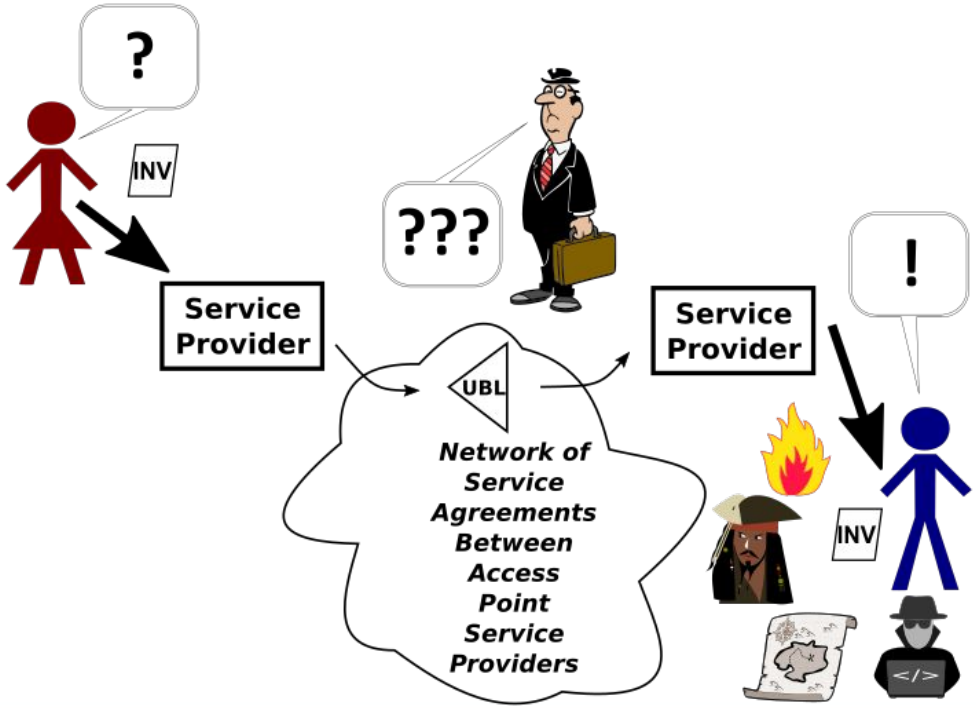
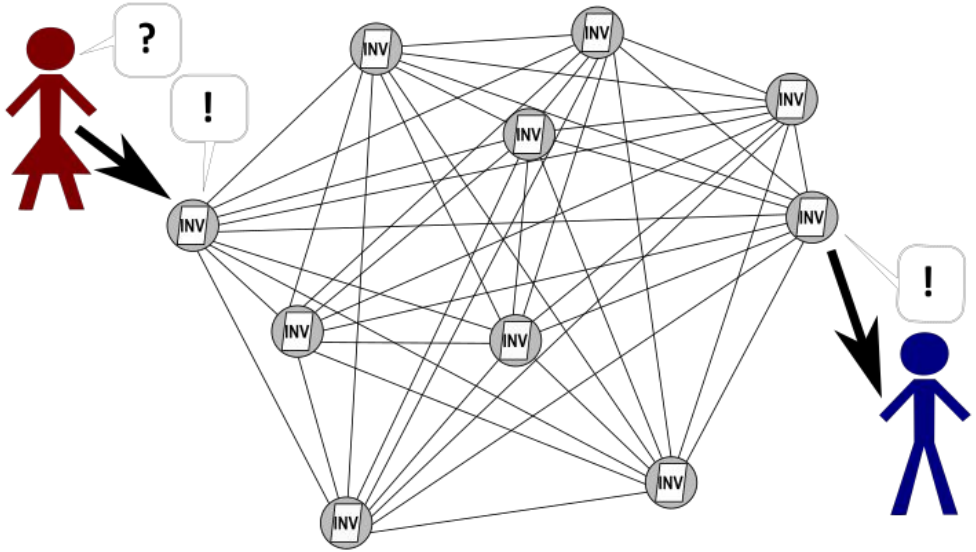


Business documents: tablets to blockchain (cont)

Document presentment future: decentralized digital ledger

- document protected on the blockchain
- business process status reflected on the blockchain
- full authentication and non-repudiation at all times

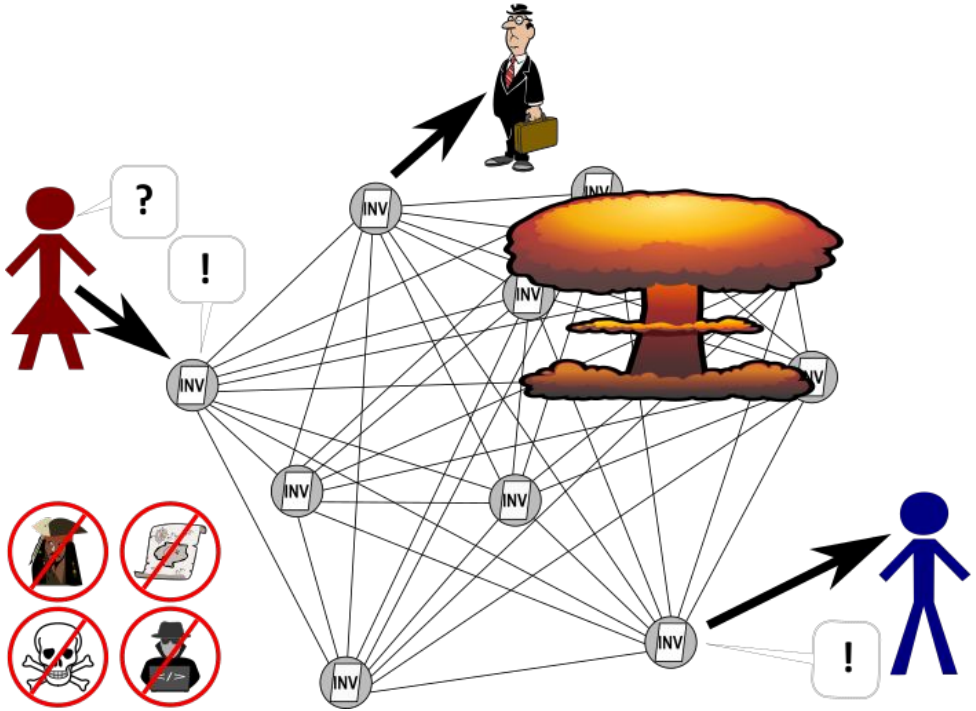
- BBILLER scope of the MVP and proof of concept



Business documents: tablets to blockchain (cont)

Document presentment future: decentralized digital ledger

- network protected from catastrophic failures
- no loss of information or connectivity for users
- third parties can get authorized access to the documents directly
- data lives for the life of the blockchain (public or private)



BBILLER.com

A smart contract for the management of a business process centred on a business document.

An open network connecting companies with their trading partners.

An open-source access service to prepare the materials for the BBILLER smart contract.

An open specification for companies to create their own interfaces to the BBILLER smart contract for their own constituencies of users.

A DAO with participants contributing to the running of the project.

MVP/PoC: The Simple Invoice Business Process

A smart contract to present and process an electronic invoice

- first-party seller
- second-party customer
- any document format (PDF, Excel, UBL XML, CII XML, EDI, text, etc.)

Simple accommodation of useful features for real-world deployment

- simple invoice process status
  - created/accepted/remitted/paid/etc.
- simple invoice clearance model
  - third-party authorization (e.g. routing the invoice through the tax office)
- simple invoice factoring
  - selling invoices at a discount to a new owner/payee for cash-flow reasons

Value proposition to end users

A user instantiates the business smart contract to trigger the defined supply chain process for their own use on a business document they have created:

- **the document is perpetually stored for a minimal one-time cost in a distributed fashion for the life of the blockchain;**
- **the document is publicly available yet its contents are visible at no charge only to authorized participants with appropriate credentials;**
- **the state is perpetually maintained for the document at no cost and is changed for a minimal cost; and**
- **the state of the document is publicly available at no cost and visible in clear text for tracking purposes by anyone (important to colleagues of the authorized participants).**

Value proposition to BBILLER token holders

The BBILLER project accumulates value in BBILLER tokens from:

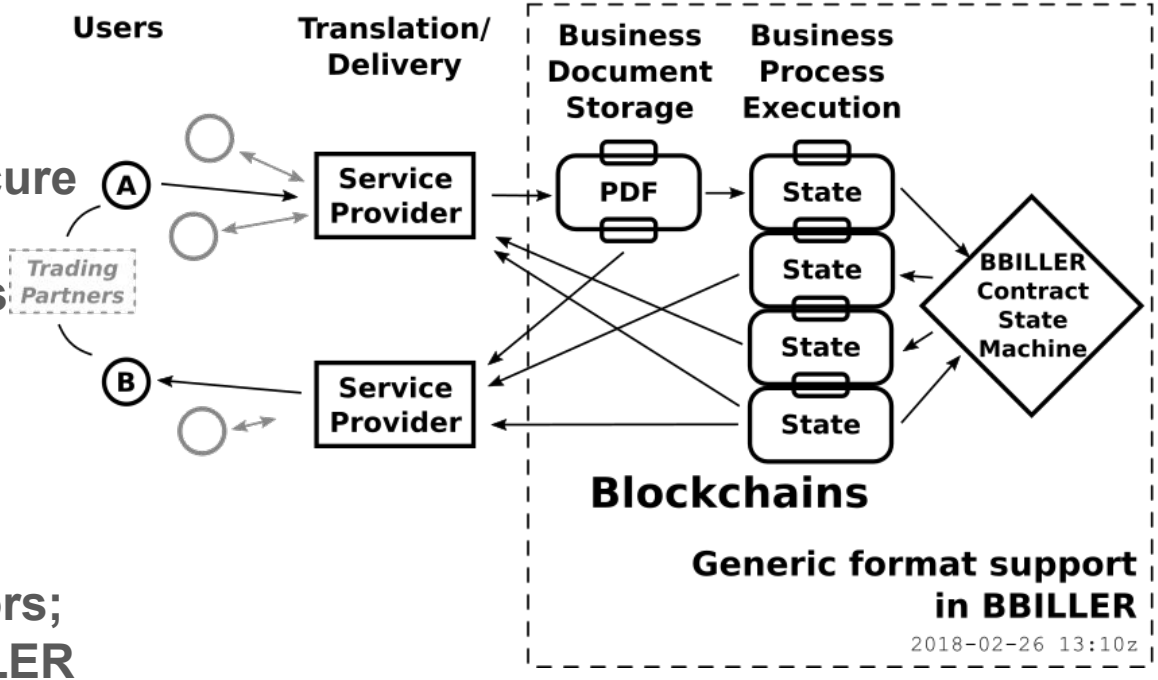
- **the project margin portion of the BILL tokens paid to manipulate the blockchain, taken from the contract execution;**
- **(optional) any fee-based configuration service request from communities of users needing support for new document types and/or new state machine specifications for supply chain;**
- **(optional) any fee-based data entry service performed by the user to create the UBL document; and**
- **(optional) any fee-based rendering service request from the user to add PDF and HTML renderings embedded inside the UBL document.**

DAO participants determine the disposition of the accumulated value.

A simple exchange of a single document

Principles:

1. **Share a document in a secure manner**
2. **Follow a business process focused on that document**



The service provider is a convenience to users and a business opportunity to vendors; savvy users can use the BBILLER smart contract directly.

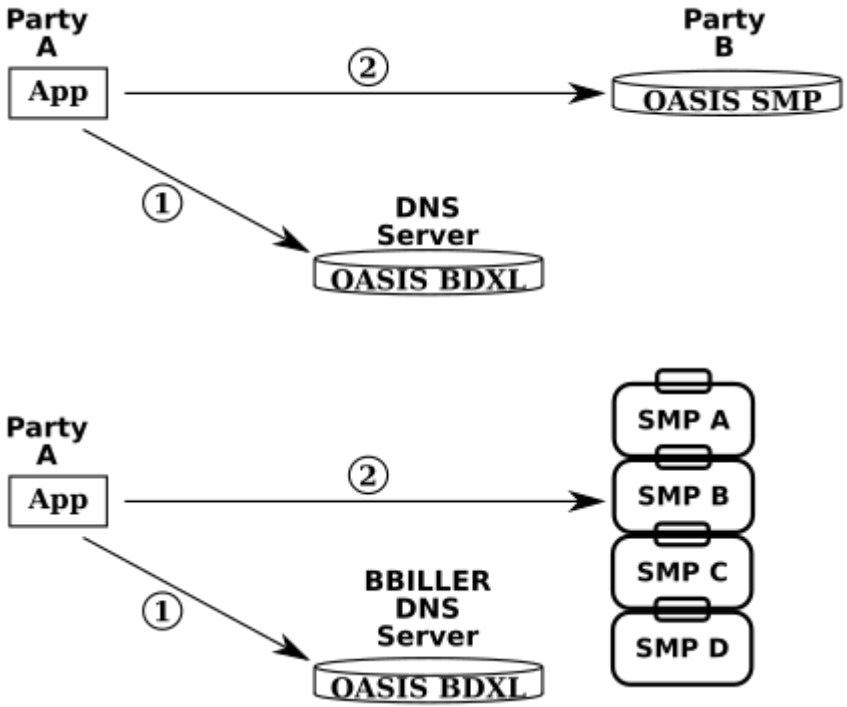
Building your partner network on top of BBILLER

Cryptographic key pairs are used for authentication and nonrepudiation

OASIS BDXL and SMP are service discovery and publishing specifications for certificates with key information (among other metadata)

Multiple existing networks provide access to existing participants

BBILLER provides a blockchain approach for those who don't run their own metadata server



Building your own business on top of BBILLER

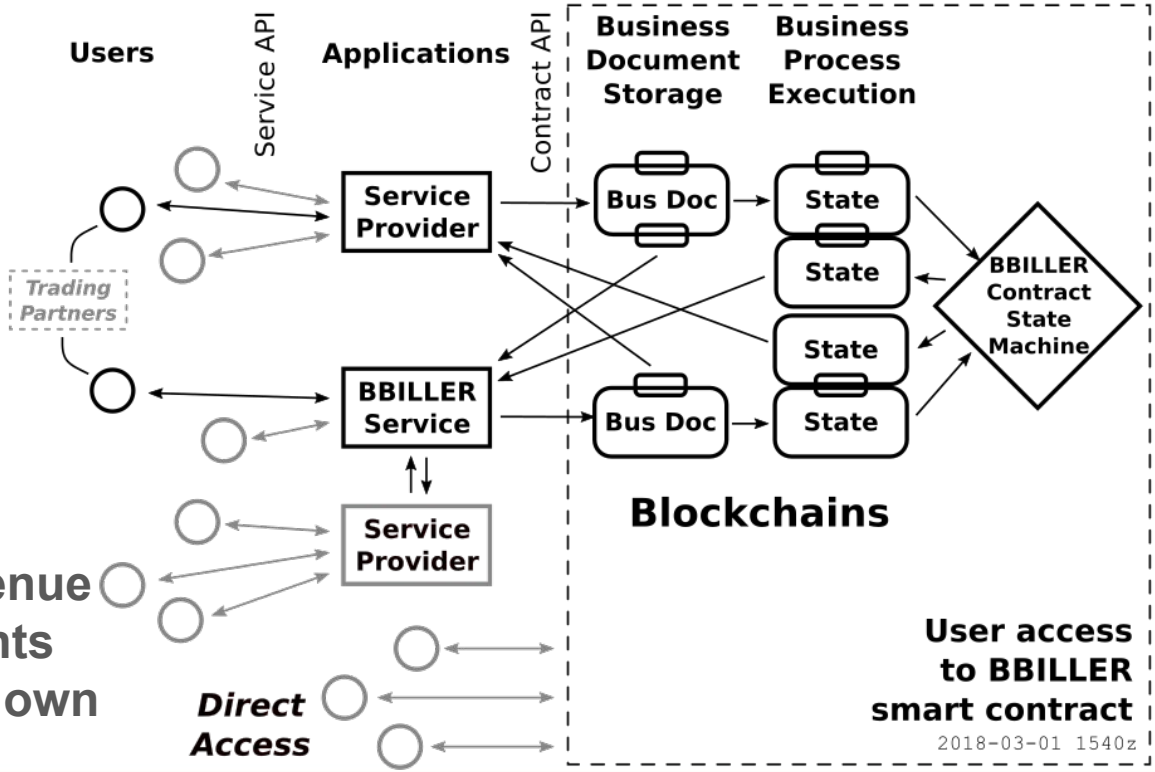
Two component interfaces:

Contract API

- oriented to security and privacy of the use of the blockchain

Service API

- oriented to make the end-user's life easier
- companies can create revenue services for their own clients by running or writing their own access services



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BBILLER On the Blockchain

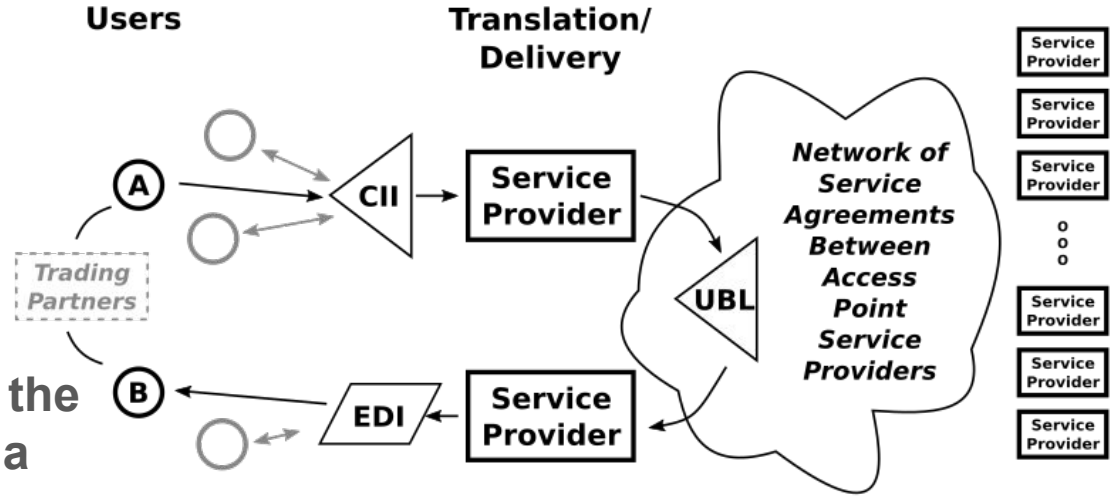
Existing market of 4-corner model provider translation

There are three large UBL-based 4-corner networks established:

- two in Europe:
  - PEPPOL and CEF eDelivery
- one in Australia:
  - BDXL hosted by the tax office

Other countries are looking at establishing these networks for the translation and transmission of a common format

OpenPEPPOL has 160 service providers certified for translation and transmission (as of March 2018)



UBL format translation in existing non-blockchain 4-corner networks

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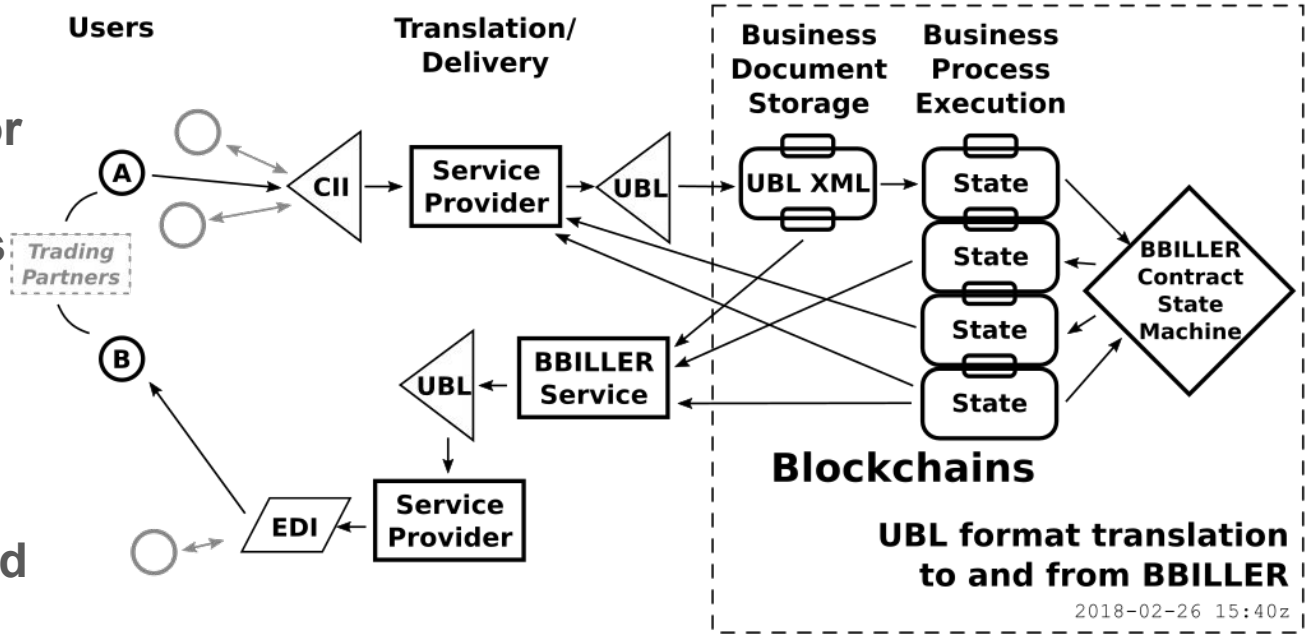
Providers now can offer blockchain services

Every service provider is a candidate user of BBILLER for their old or new clients wanting to experience the benefits of using blockchain technology.

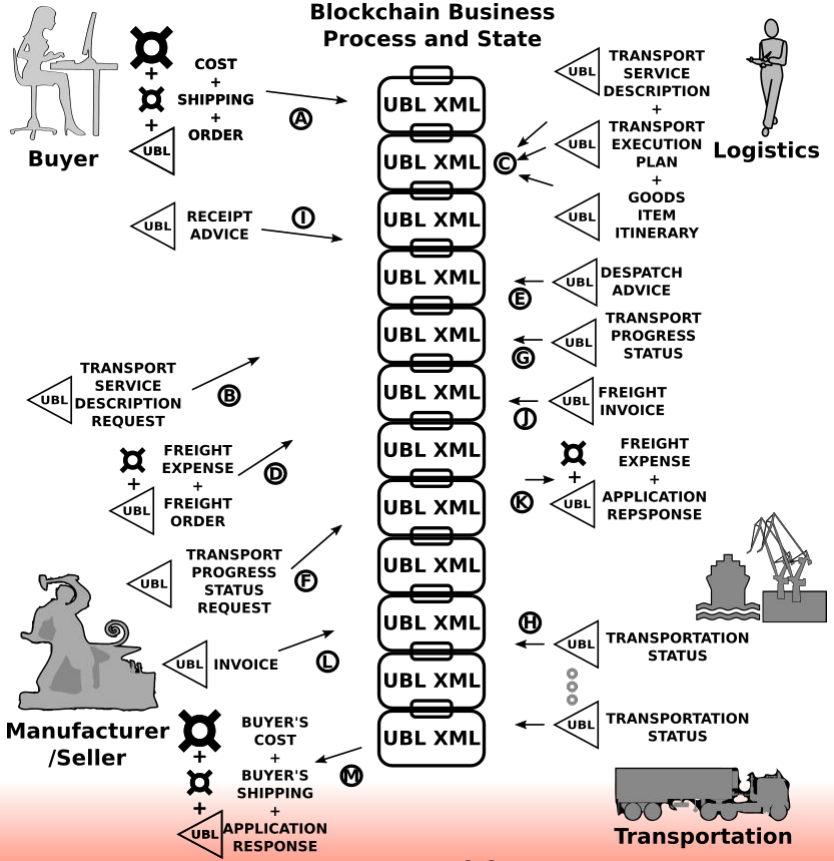
BBILLER fosters a marketplace of new revenue for existing and new companies.



No obligation to use internationally-standardized UBL - ISO/IEC 19845 ... but ...

...after BBILLER proves it can be done for one business document...

End-to-end supply chain B2B processes



Ottawa meetup: Realizing Blockchain (Bitcoin, Ethereum, alt coins, ICO)
Wednesday, March 7, 2018 - Collab Space

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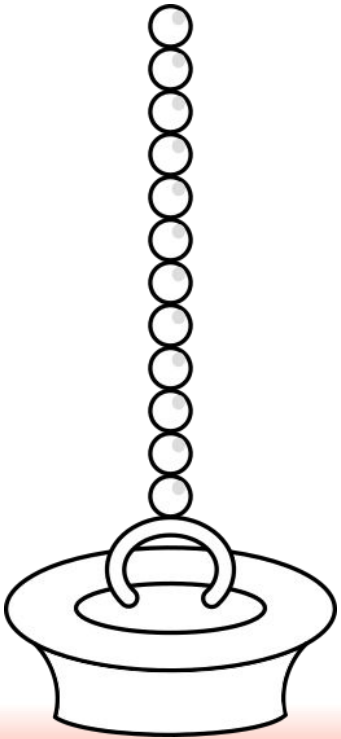
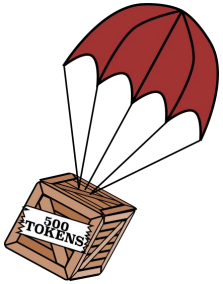
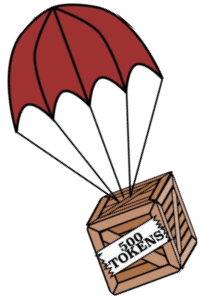
Questions?

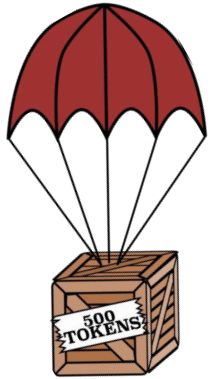


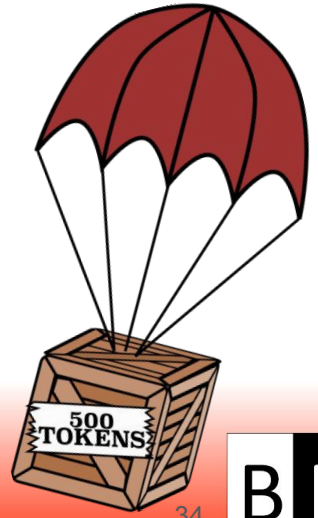
Airdrop of 500 BBILLER tokens





Use one of the links on the
BBILLER.com home page:
"Get 500 free tokens"
Use "Ottawa20180307"
for the referral code.





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BBILLER
On the Blockchain

ICO details (subject to change)

From: http://BBILLER.com/ico

- This is not a financial or gaming product. It is software made for the benefit of industry and commerce who want to conduct transactions peer-to-peer and direct this project for their own purposes.

BBILLER Pty Ltd seeks to raise funds on the sale or disposal of 11,100,000,000 BBILLER tokens for a total of $131,000,000USD as follows:

Total for Sale: 5,100,000,000:

- Round 1: 1,100,000,000 @ $0.01USD
- Round 2: 2,000,000,000 @ $0.02USD
- Round 3: 2,000,000,000 @ $0.04USD

Balance of Tokens allocated as follows:

- Team: 1,000,000,000
- AirDrop: 1,000,000,000
- Balance: 4,000,000,000 to Existing Investors and held in reserve.

ICO dates and pre-sale (subject to change)

From: http://BBILLER.com/shop

Pre-sale now open at discounted rates as of 07 March 2018:

1,000 BBILLER for US$6.50	(ICO round 1 = US$10)
10,000 BBILLER for US$55.00	(ICO round 1 = US$100)
100,000 BBILLER for US$450.00	(ICO round 1 = US$1,000)
2,500,000 BBILLER for US$6,250.00	(ICO round 1 = US$25,000)

ICO Start Date:	30 September 2018
ICO End Date:	01 November 2018
Exchange Trading Date:	07 November 2018 http://www.idex.market