

## **Problem Statement**

For International Trade and Data Sharing



## What Trade problems are we aiming at solving?

# Digitisation & Data Sharing

How to Securely Exchange Data across whole Supply Chain

Improve Trade Efficiency and Reduce Cost

Improve Supply Chain Tracking and Visibility; remove data silos

#### Data Trust

Fraudulent data can be digitised as easily as valid data

How to add Trust to the data to identify origin and ownership

How to ensure the data is original and not modified

# Privacy & Ownership

Who owns the data and how do they securely manage it

How can they securely grant and revoke data access

What about data I have that I don't own. Can I still share It

#### Central Repositories

A simple way to solve the data silo and visibility challenge

Can we trust the repository operator with our data

Under what jurisdiction does the data reside

#### Risk Reduction

How to reduce risks related to data I need for my processes

Can risk reduction open up new forms of financing

How can we identify bad actors and remove them

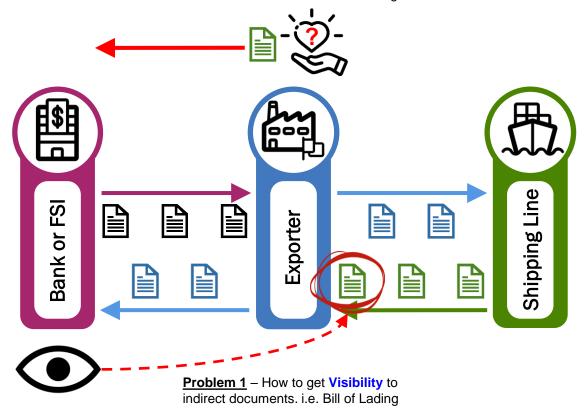


## **Problem: Data Gaps and Data Silos**

#### Today's Visibility Challenge.

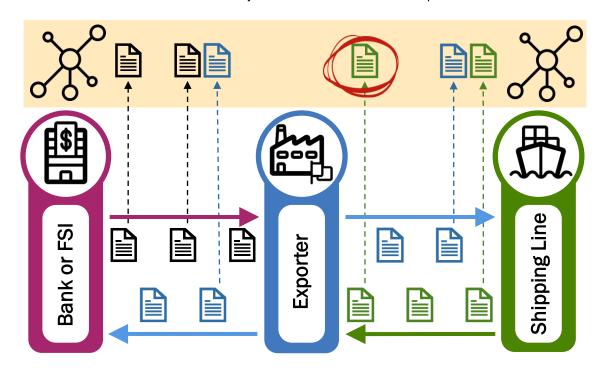
(Simple 2-tier Network)

<u>Problem 2</u> – Intermediate party could share the document. Can I <u>Trust</u> the data has not been changed?



#### **Visibility with Centralised Network**

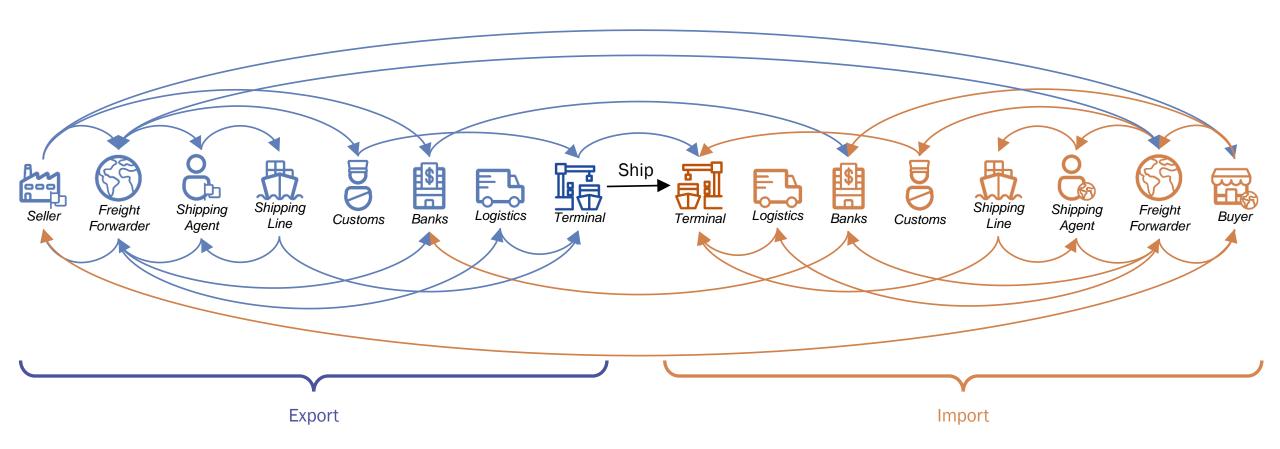
<u>Problem 3</u> – How to <u>Control</u> access to my data. Do I trust the network operator?





## The "Spaghetti" effect for Trade Document Exchange

Many Relationships - Direct Relationships Vs Indirect Relationships, No End to End TRUSTED Visibility



(Complex Multi-tier Cross Border Supply Chain = Bigger Problem!!)



# eCOM Registry™ Introduction

A Trusted Data Network



#### eCOM Registry™: A Peer-to-Peer (P2P) Network controlled by Blockchain



Each enterprise creates a secure Private Registry of Trusted Trade Data within their domain which controls data ownership



Digitally signed metadata, including the data hash # and other reference info, is published to the Blockchain Network

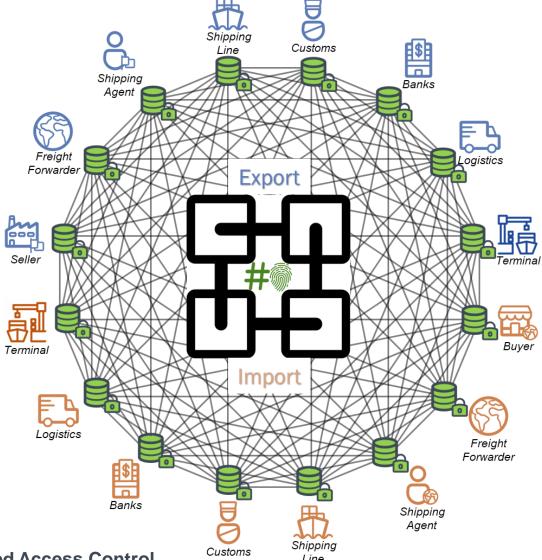


Related Trade Data is grouped into shipments so all Network participants can easily discover data and request access from the data owner



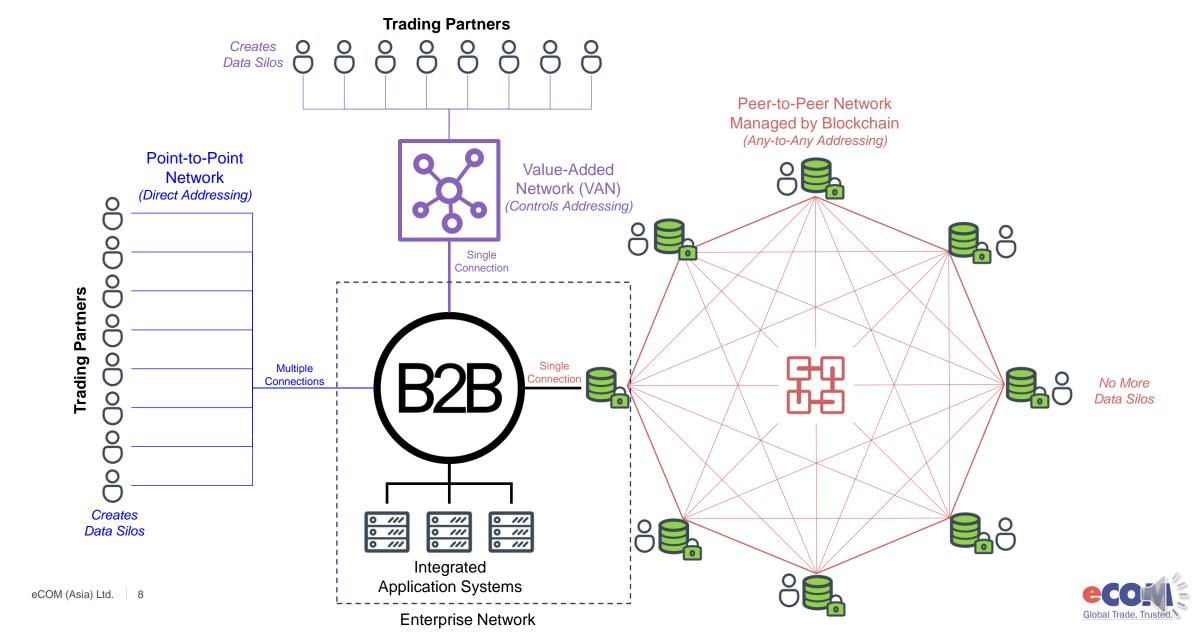
Data is always exchanged securely Peer-to-Peer between the data owners Private Registry and the requester, never through the network



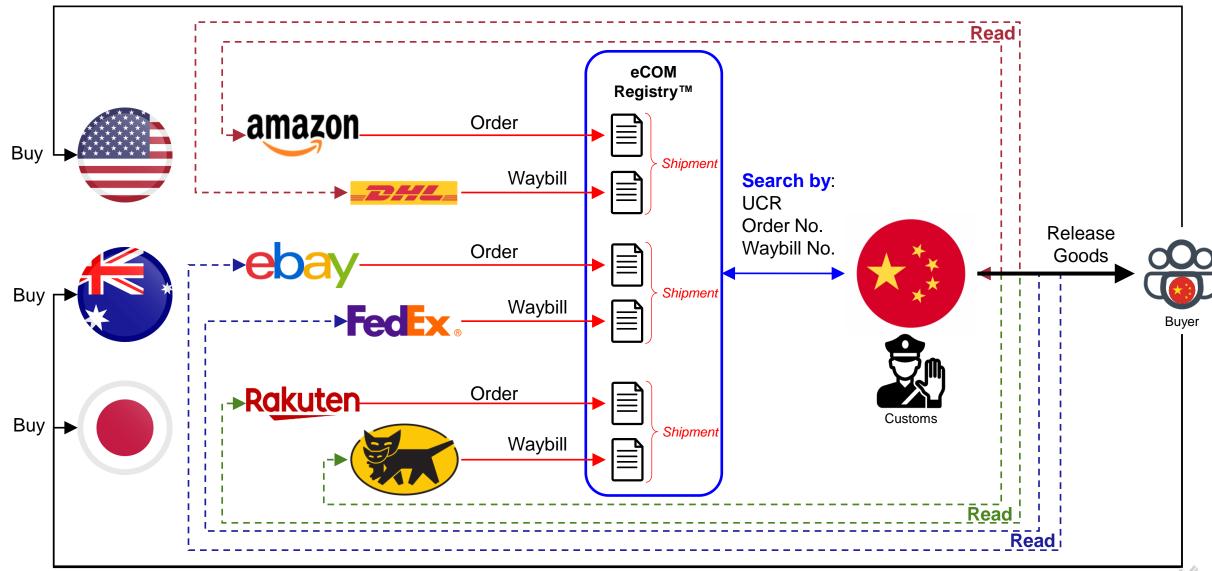


Distributed Ledger + Distributed Data + Distributed Access Control The next Generation of B2B

### Traditional B2B Networks vs eCOM Registry

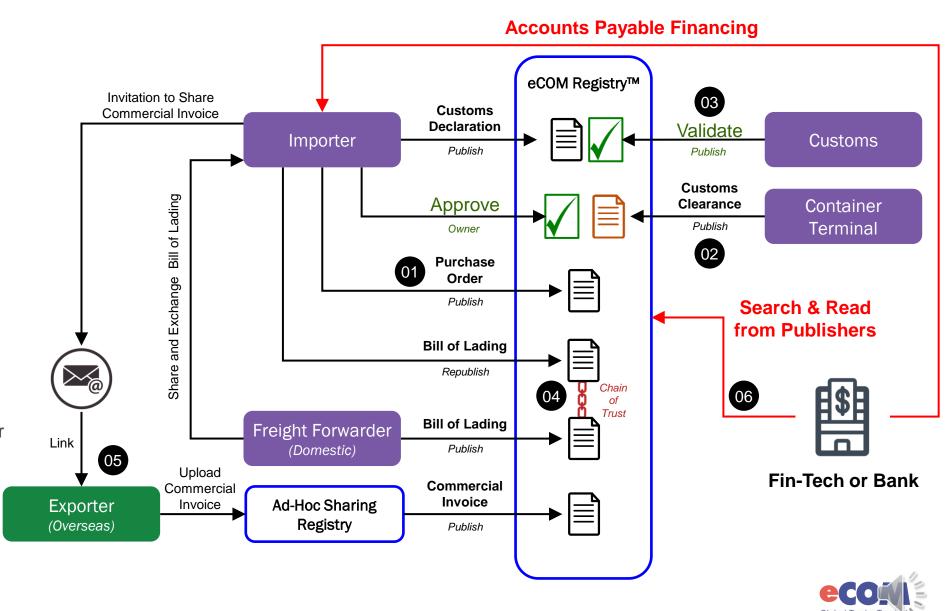


## **B2C Customs Clearance – Speed, Security and Revenue**



### Multiple Sharing Metaphors – Bank Trade Validation

- Importer is Publisher and Owner of the Purchase Order
- Terminal is the Publisher of the Customs Clearance and Importer is the owner and must approve access
- Customs Declaration is owned and published by Importer, Customs publishes a validation
- Freight Forwarder shares and exchanges Bill of Lading with Importer; Importer republishes Bill of Lading = Chain-of-Trust
- 5. Importer invites Exporter to share Invoice. Exporter uploads to Ad-hoc Registry. Exporter is publisher, Importer is owner
- Bank can now access all document related to the shipment and validate the Trade



## Benefits of the eCOM Registry™ Trusted Data Network

#### Private Registry

Securely Manage your data assets as files or links to data in other systems

Add Trust to data when registering by Hashing and Signing metadata to the Blockchain

All Data remains secure within the enterprise so is distributed by nature

## Shared Registry

Publish trusted metadata to the network for discovery by other participants

Related Metadata can be grouped into "Consignments"

Multiple levels of access control ensure security and privacy

#### Data Owner Sharing Approvals

Metadata can be published by one organisation who can nominate another as owner

All Access requests are managed by the data owner

Once access is granted, data can be downloaded directly from the Publisher

#### 3<sup>rd</sup> Party Validation and Chain-of-Trust

Trusted 3<sup>rd</sup> Parties can publish a "Validation" of some data, without having to share it

Data consumers can compare the data hash for validation

Data passed between parties on the network creates a Chain-of-Trust

## Ad-Hoc Sharing

Network participants can invite non-network users to share data via email

Link in email directs nonnetwork user to portal to upload or download data

Uploaded data is signed and hashed to add Trust and ownership



