



The Global Language of Business

Digital exchange of trade documents across borders

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GS1 & GS1 Thailand History



- **1973: The barcode standard is agreed:** Industry leaders in the US select a single standard for product identification. Still used today, it's known as the GS1 barcode.
- **1977: The GS1 system is launched:** The European Article Numbering (EAN) Association — later called GS1 — opens an office in Brussels.
- **2004: The first standard for RFID is created:** With Radio Frequency Identification (RFID) Chips becoming more common, we create a standard for their implementation and use.
- **2007: GS1 enters the business-to-consumer world:** As ecommerce grows, we begin to create open standards that give consumers direct access to key product information.



- As a leading provider of standards and solutions for dozens industry sectors in Thailand.
- Introducing the standards, solutions and services of the technologies of barcodes and EPC/RFID to the industries in Thailand.

GS1 by the numbers



1 million

**over 2 million
companies worldwide use GS1
standards**

150 countries

**25
industries served
across 150
countries**

5 billion

**Barcodes scanned
more than 5
billion times per
day globally**

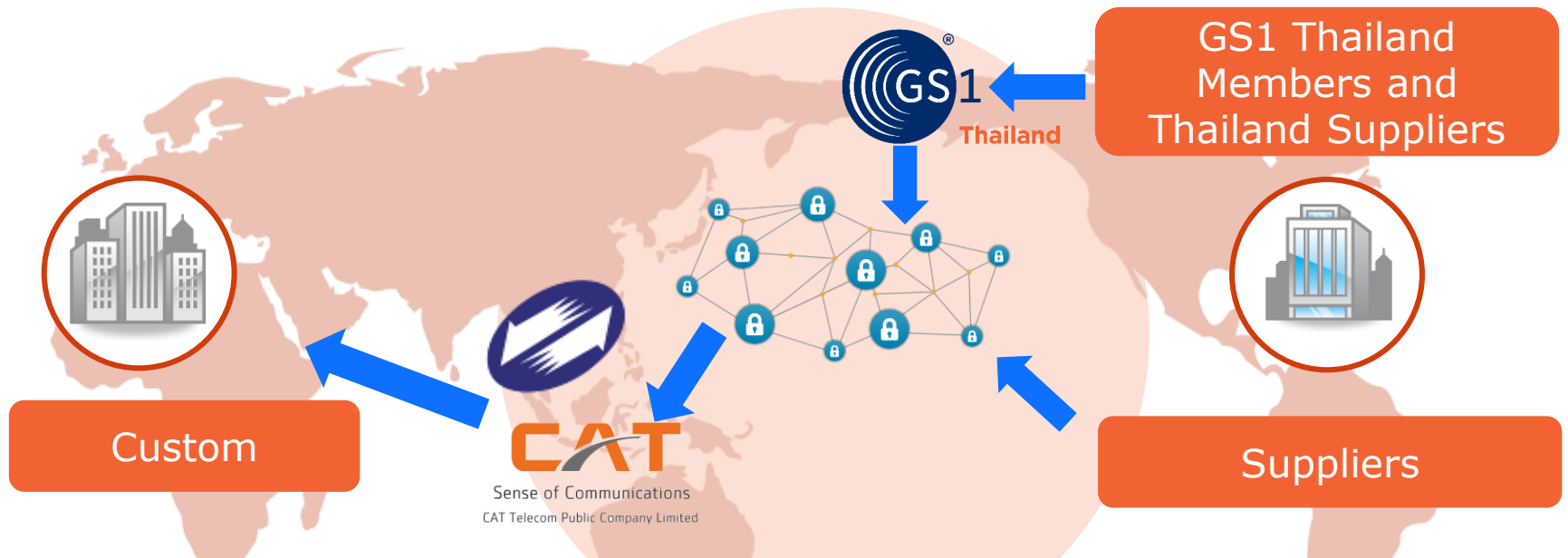
110+ MOs

**110+ Member
Organisations
around the
world**

Targets

- **Purpose:**
 - To assist International trading characters or locations such as suppliers, members and the customs to exchange the data especially **e-documents easily, quickly and reduce the cost.**
 - To help both country's suppliers for **speeding up** the goods movement.
- **High Security Tech with Blockchain and GS1 Standards:**
 - Secure the confidential documents with **Blockchain Technology.**
 - Deploy **GS1 Global Location Number (GLN)** to identify International trading characters or locations such as suppliers, members and the customs.
- **Simple to Exchange the Data Everywhere**
 - Utility the services via the Kiosk or the computer with the website or the application.

The Scope of the Service



Trade-Van
and CAT
Telecomm

- System development
- Implementation
- Maintenance

Value
Added
Services

- Government projects
- **Standardization (GS1)**

GS1 Thailand
Customers
Services

- Promotion & Marketing
- Interconnectivity test
- Training

GS1 Standards

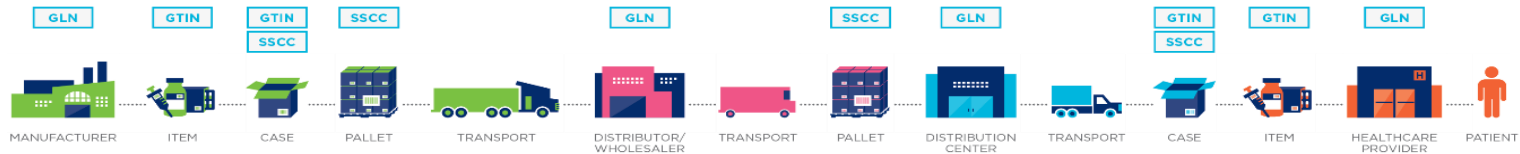
IDENTIFY GS1 IDENTIFICATION NUMBERS

GLN Global Location Number

GTIN® Global Trade Item Number®

SSCC Serial Shipping Container Code

EPC®/SGTIN Serialized Global Trade Item Number



CAPTURE GS1 DATA CARRIERS

BARCODES

EPC-ENABLED RFID

EAN/UPC



GS1-128



ITF-14



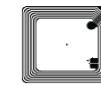
GS1 DataBar®



GS1 DataMatrix



HF RFID



UHF RFID



The appearance of the EPCglobal Seal is to inform that an EPC-Enabled RFID tag is present on or within the packaging of the product(s).

SHARE GS1 DATA EXCHANGE

MASTER DATA GLN Registry™, Global Data Synchronization Network™ (GDSN™)

TRANSACTIONAL DATA Electronic Data Interchange (EDI)

PHYSICAL EVENT DATA EPC Information Services (EPCIS)

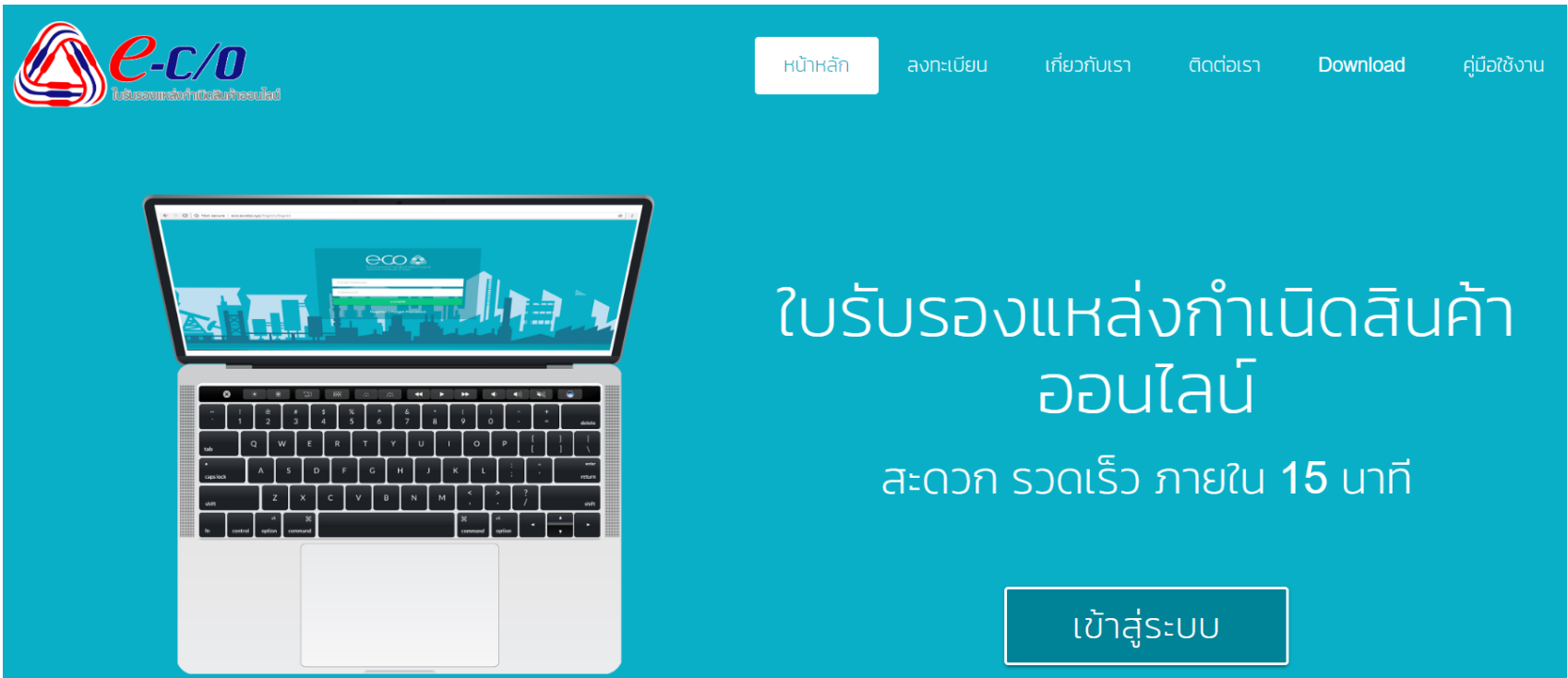


In this presentation, the letters "U.P.C." are used solely as an abbreviation for the "Universal Product Code" which is a product identification system. They do not refer to the UPC, which is a federally registered certification mark of the International Association of Plumbing and Mechanical Officials (IAPMO) to certify compliance with a Uniform Plumbing Code as authorized by IAPMO.

Transfer e-CO via PAA System

eCO Platform (GS1 Thailand and Federation of Thai Industry)

- Producing e-Document of CO.
- Will be able to send e-CO to PAA partners' platform and deliver the documents automatically. (Building up the API currently)



e-c/o
ใบรับรองแหล่งกำเนิดสินค้าออนไลน์

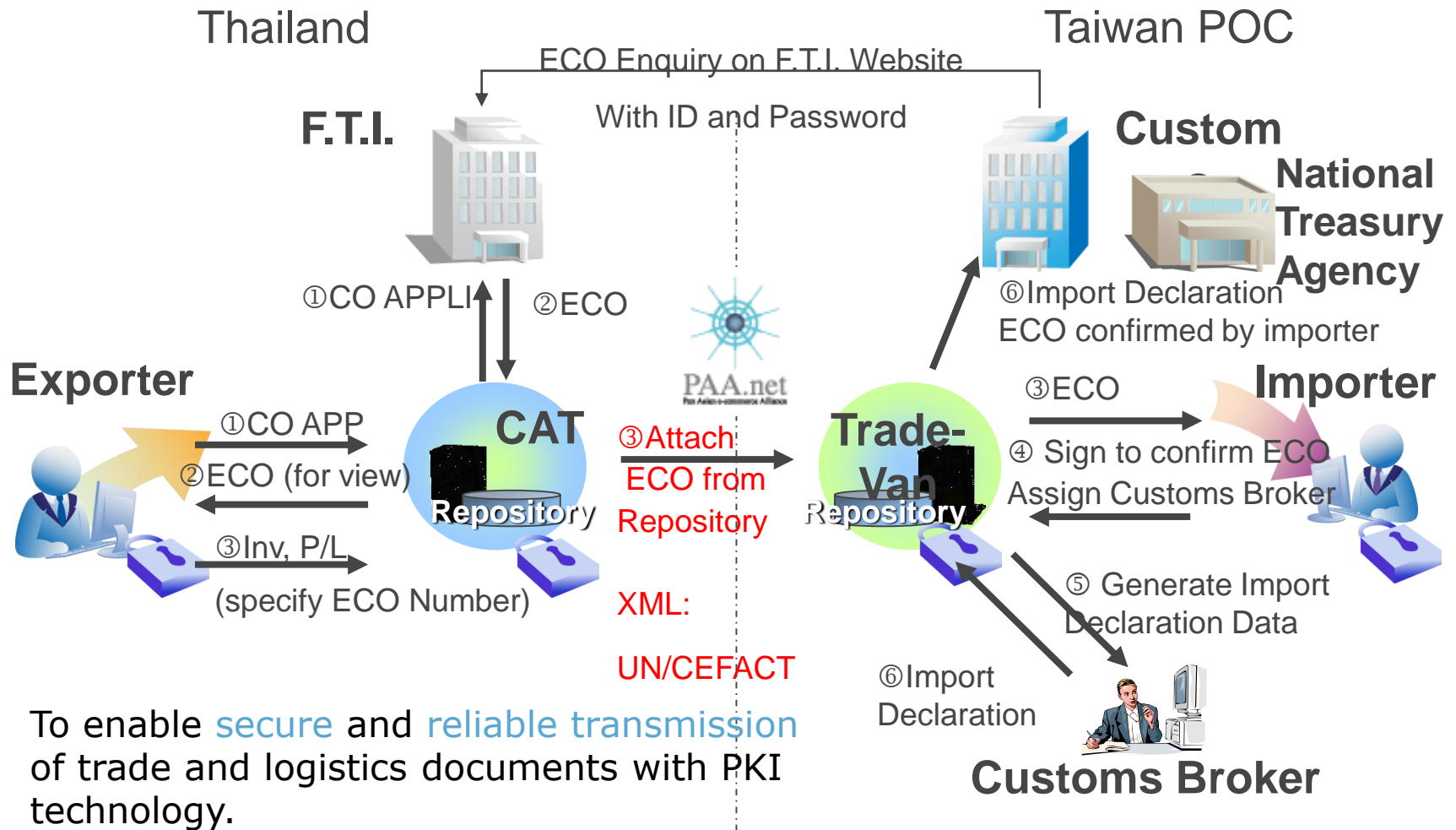
หน้าหลัก ลงทะเบียน เกี่ยวกับเรา ติดต่อเรา Download คู่มือใช้งาน

ใบรับรองแหล่งกำเนิดสินค้า
ออนไลน์

สะดวก รวดเร็ว ภายใน 15 นาที

เข้าสู่ระบบ

ECO Scenario



Original Document Process vs e-Documents Program on e-CO

Currency: THB

Procedure Workflow	Original Process of the Document Process for CO		e-Documents Program of GS1 Thailand for eCO	
	Time	Cost	Time	Cost
1. Issuing the document of Country of Original from FTI	4 days	165	1 day	250
2. Courier delivery		165		
3. Get the approval from The Taipei POC Economic and Cultural Office in Thailand	2 days	330		
4. International Courier delivery	3 days	330		
5. Custom process	2 – 14 days		2 hours	
Total	11 – 23 days	990	1 day and 2 hours	250

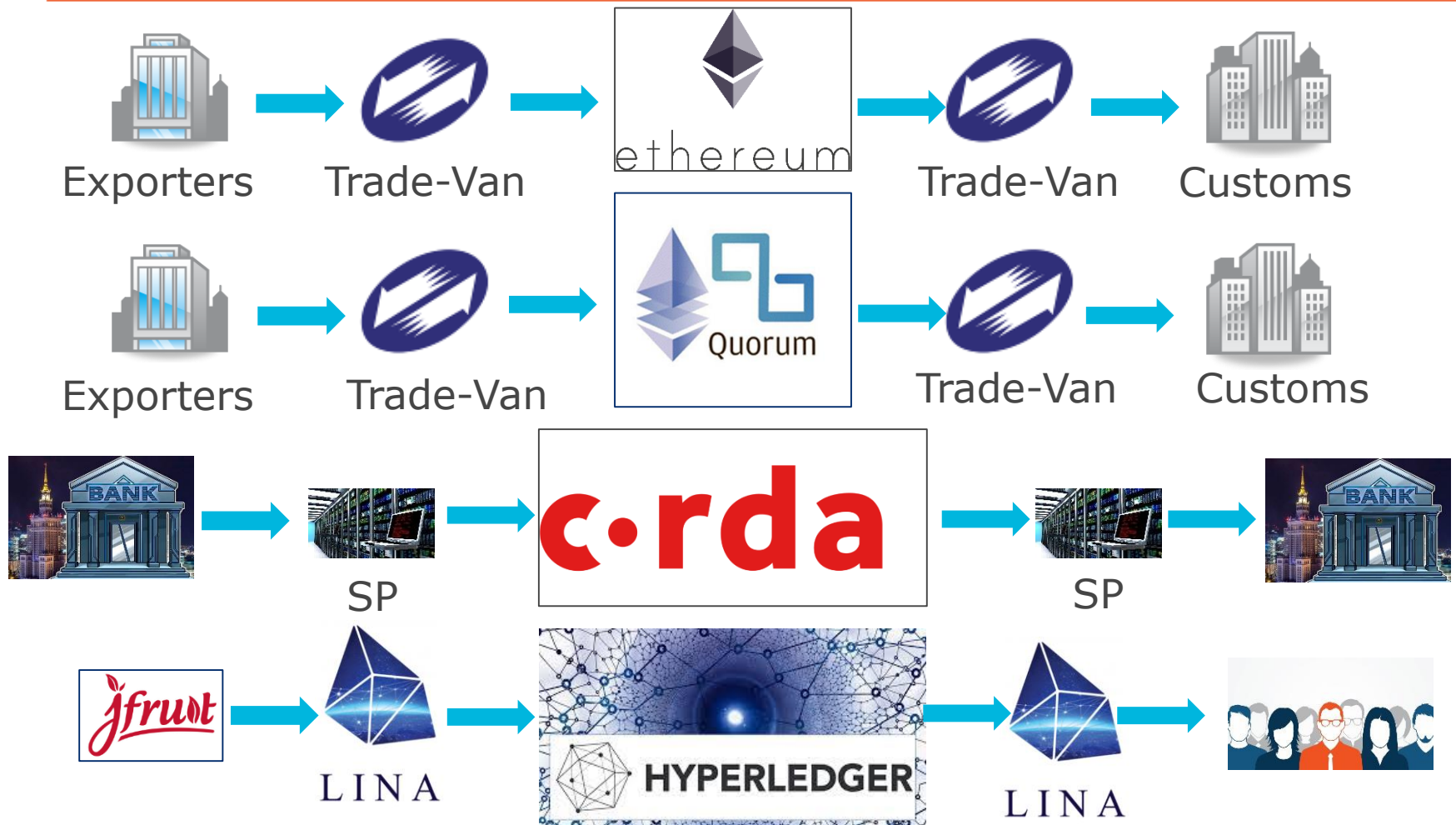
Note:

#1: This service is for C2 - cargo clearance with document approval.

#2: The price is approximately numbers. Please note that the price may be subject to change due to various conditions.

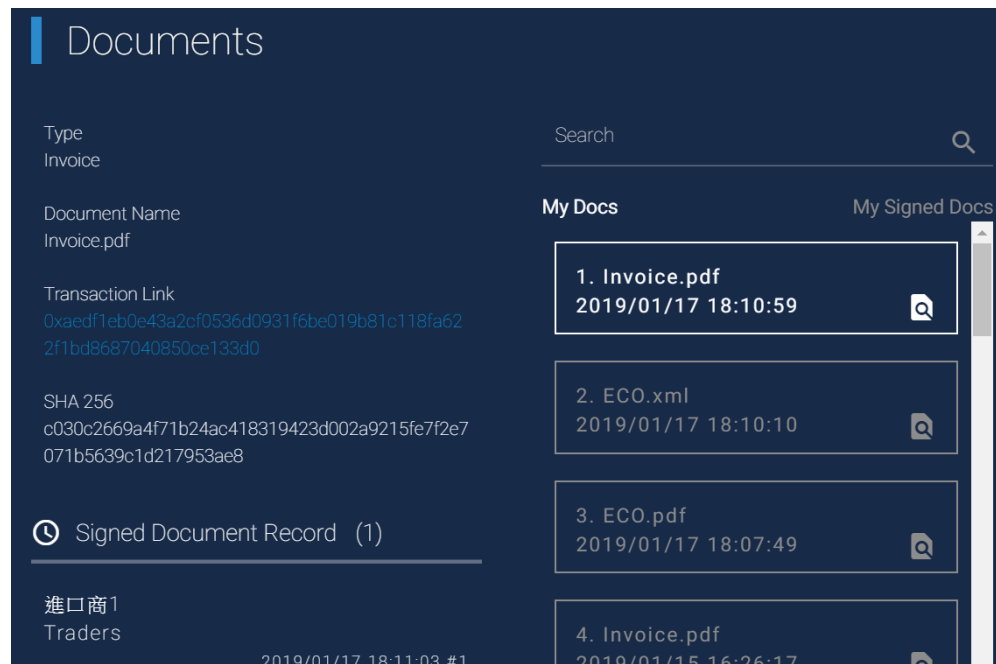
Transfer e-Invoices via Cross Border Blockchain Platform (CBBP)

Blockchains



Cross Border Blockchain Platform

- Utilizing Ethereum Blockchain Nodes for the Beta version. Regular version will use Quorum Blockchain Nodes.
- Protecting the content with encryptions.



e-Invoice via Blockchain Platform - CBBP

Processing

Once the document is placed here, the program will automatically sign the document and transfer to the authorized Receiver.

Signing

When the signing process is activated, the system will automatically move all signing documents to this folder.

Done

Signed documents will be moved to this folder.

Existed

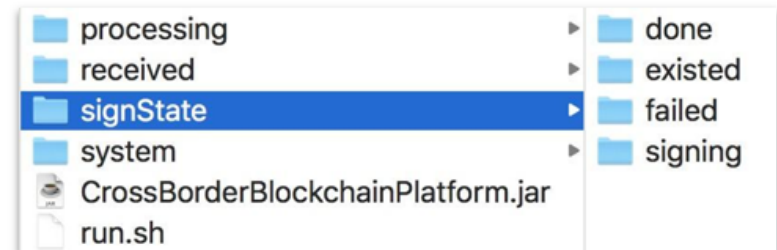
Previously signed documents on the platform will be moved to this location.

Failed

Failed-Signing documents will be moved to this folder.

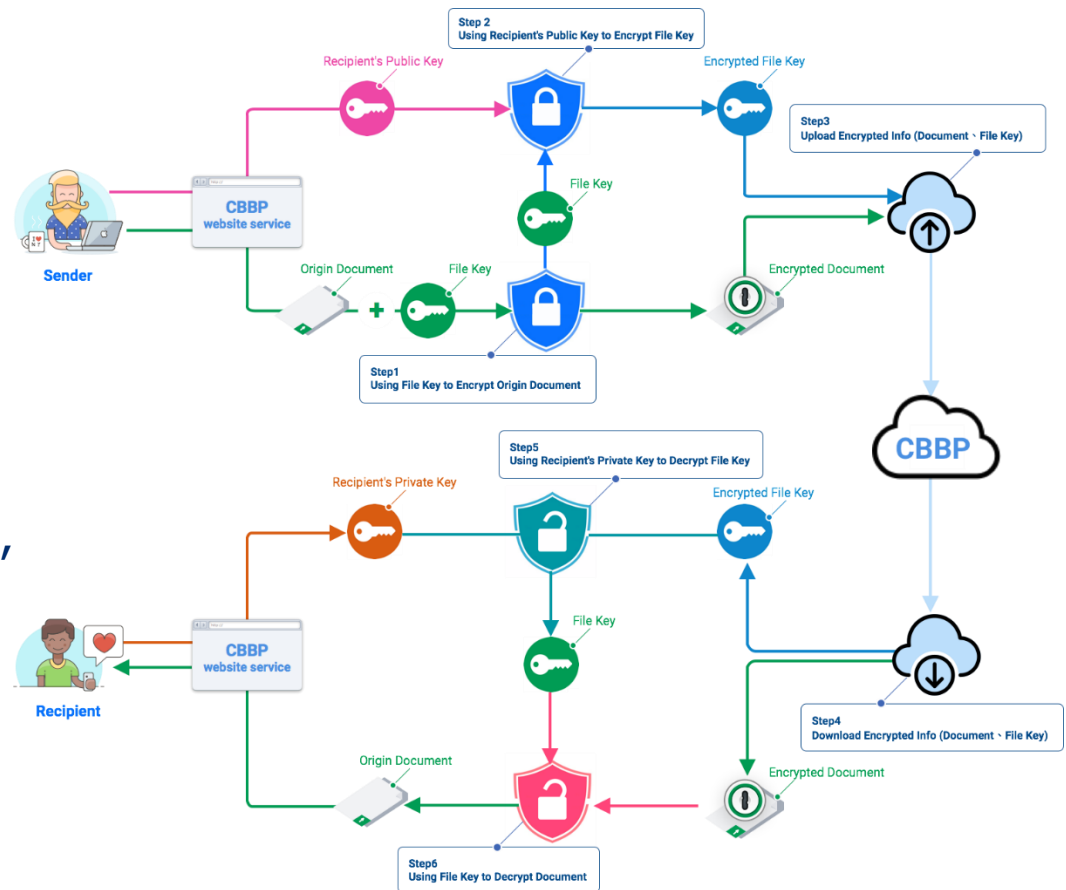
Received

Documents that others have authorized to you will be automatically downloaded by the program to this folder.



CBBP Keeps Documents Confidential

- CBBP is using **Blockchain** and PKI technology to secure the content.
- **Connect directly** to trading partners and logistic providers.
- **Reduce administrative costs**, purchasing costs, courier cost.
- **Speed up** transactions.



Future Plan

- 1st Phase
 - GS1 Thailand: Introduce 1 or 2 exporters to send any e-documents to the custom via Trade-Van eCO service and its blockchain platform.
- 2nd Phase
 - Exporters will send e-CO, (will be generated by the FTI) to the overseas custom in real time by the API.
- 3rd Phase
 - Adopt the services to other regions.

Challenges

- **Traditional vs Technology:** The importers / exporters are not easy to change their current way.
- **Authorities Influence:** Customs don't have the authority to force importers / exporters to use the platform.
- **The Phenonium:** Paperless or e-Documents mindsets should be planted into the industries.
- **No Standards:** For example, Every country's authority uses its own ID system for identifying local companies and agents. GS1's GLN could be one of the solutions.
- **EDI issues** – The eCO platform between regions are different. It takes time to build up the Application Programming Interface (API) to interoperate/synchronize/transfer the data.

Conclusion

- Technologies are never been the issue. Anything is involved by people, parties and organizations will be the problems.
- Increase the awareness of supply chains for using e-Documents and paperless to submit the official documents by the regulation (encouragements)?
- Blockchain is not the new technology. It is combining encryption/decryption, grid computing, Algorithm, Synchronization to create up a new application. It is new security way to transfer sensitive documents.

Thank you



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