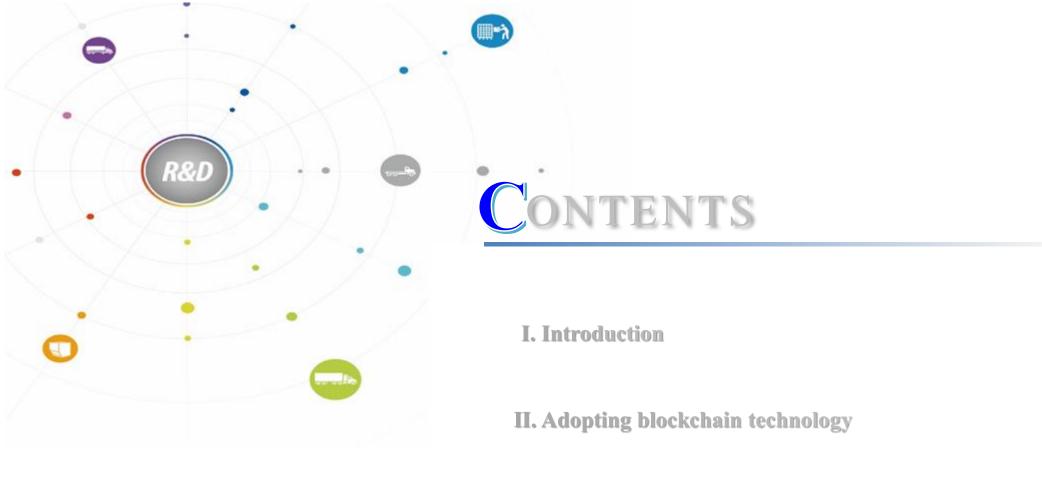


KOREAN EODES

- BLOCKCHAIN BASED E-C/O SYSTEM IN KCS(KOREA CUSTOMS SERVICE)

25 November 2022 Kerri Ahn, ESCAP Consultant

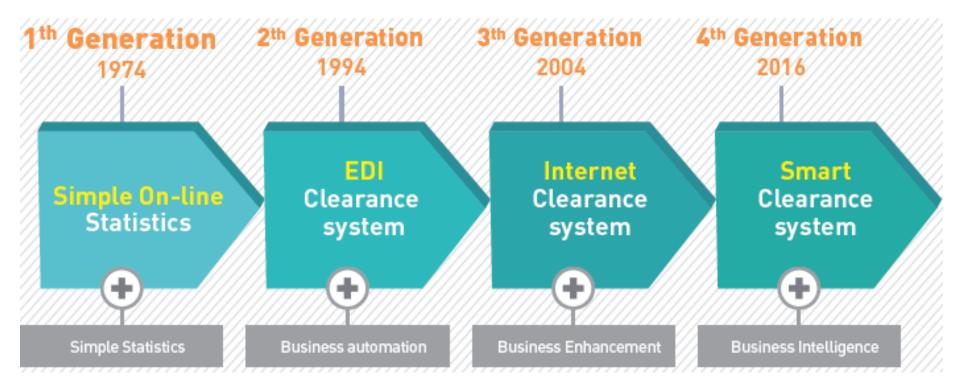


III. Conclusion

I. Introduction

1. KCS UNI-PASS system

- Overview
 - UNI-PASS system is an electronic system developed and operated by the Korea Customs Service for efficient customs border protection
 - Korean e-Clearance System
- History



1. KCS UNI-PASS system

Key modules



Internet Portal

APIS

(Advance Passenger

Information System)



Single Window



Integrated Risk Management



With the internet clearance portal, users can access customs services anytime, anywhere with convenience. The Single Window System provides services as a single onestop channel which processes a series of procedures including submission of applications for im/export requirement approvals of regulatory agencies and receipts of the approvals, as well as making related payments.

This system controls customs borders and comprehensively manages related risk information, analyzes risks based on related information, and targets high-risk cargo, passengers, and transport modes scientifically according to the analysis results.



Import/Export



Through passenger information analysis based on big data including customs information, immigration records of other institutions such as airlines, and Ministry of Justice, this system provides effective control and accurate detection of high risk passengers while providing fast clearance for regular passengers. In a 100% paperless environment based on the international customs data standards, this system provides swift, convenient, and transparent nonstop services 24/7 for a range of clearance regimes from general im/exports to individuals' e-commerce transactions.

This system enables management of gross weight of cargo throughout the entire process from the point of manifest submission to cargo release, as well as real-time monitoring and control of individual cases of cargo.

Duty Collection & Drawback



CDW



Post Audit



This is a fully automated duty collection and drawback system which enables easy and convenient management, and accurate assessment of national revenues, as well as convenient calculation of drawbacks at the time of application.

CDW is a data warehouse which consolidates internal customs data with external data on immigration, foreign exchange, and internal taxes, and it improves work efficiency in all customs areas through statistics and information analysis.

This system enables computerization of the entire audit process from the initiation to result management to enhance audit transparency, as well as feedback in risk management with a search function for company audit history and audit cases.

Al X-ray Inspection



Applying artificial intelligence technology to the x-ray scanner, it enables security and speed of customs clearance by raising detection capability and with AI based automatic screening.

Cross-Border C/O Data Exchange

With the increased demand for certificates of origin due to expanded FTAs, this system provides cross-border origin data exchange and verification on imports and exports.

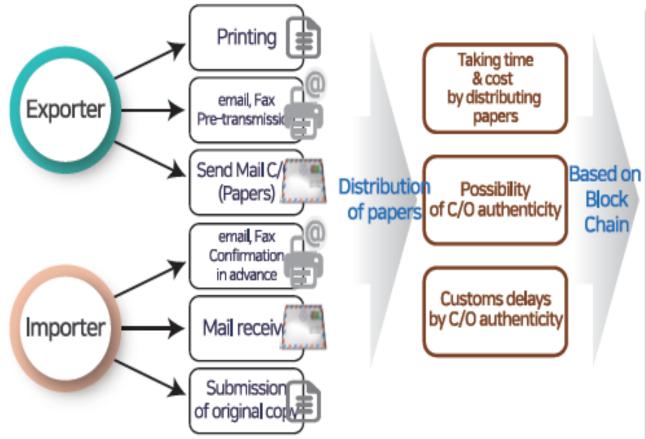
EODES in KCS

- What is EODES
 - EODES: Electronic Origin Data Exchange System
 - which is blockchain-based service platform for cross-border e-C/O exchange
 - Issuing, exchanging, and reviewing the Certificate of Origin (C/O) electronically
 - To resolve the difficulties of Customs clearance, the exchange C/O data use the blockchain to prevent forgery of documents

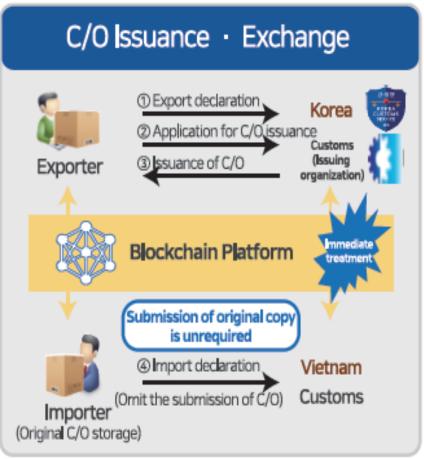
EODES in KCS

What is EODES

Exchange of papers (Absence of exchange system)

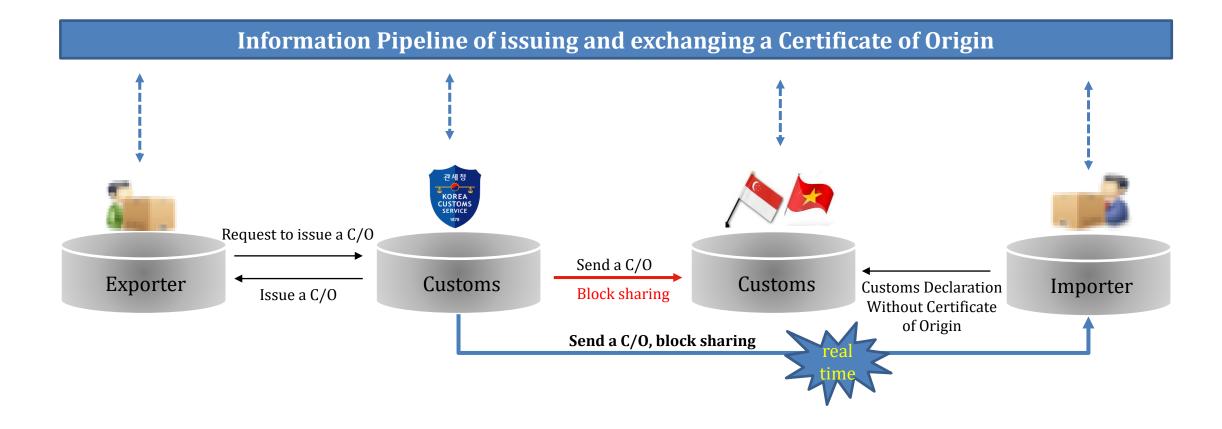


Block Chain-based Exchange Data

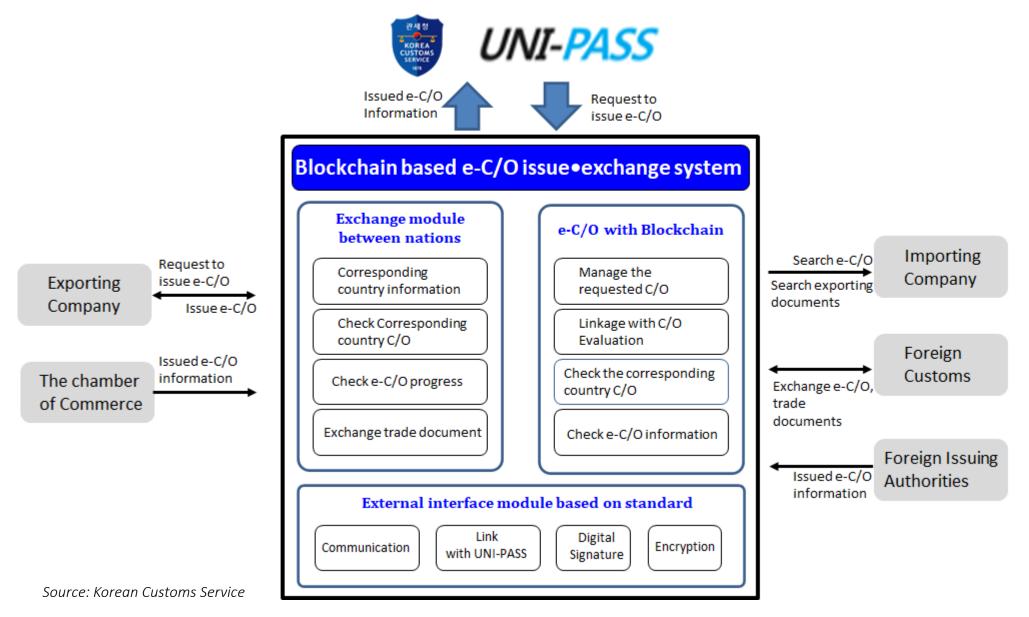


Exchange Certificate of Origin by Blockchain

Certificate of Origin exchanging with a blockchain in Korea

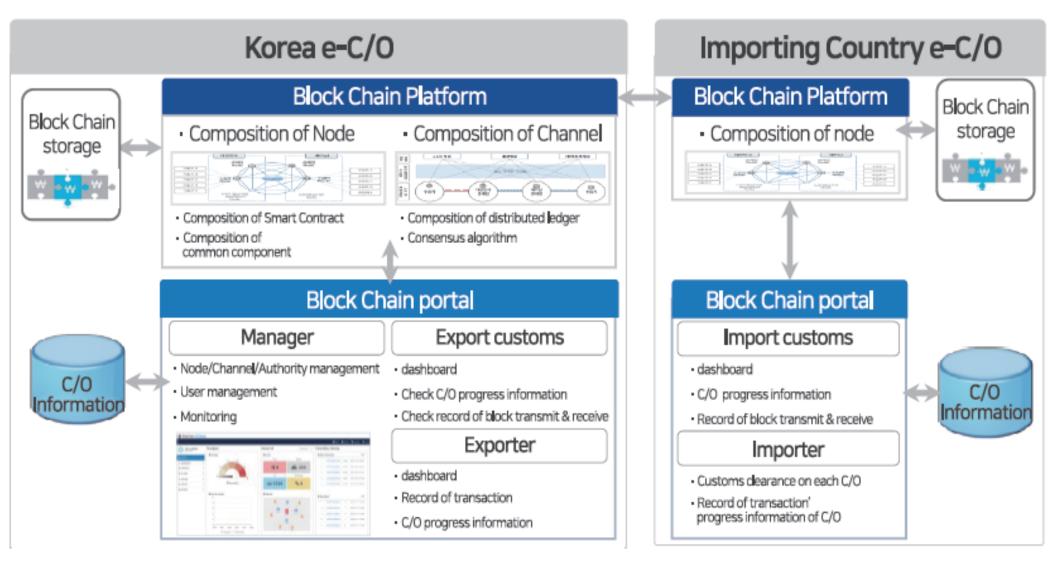


Service configuration for Exchange Certificate of Origin by Blockchain

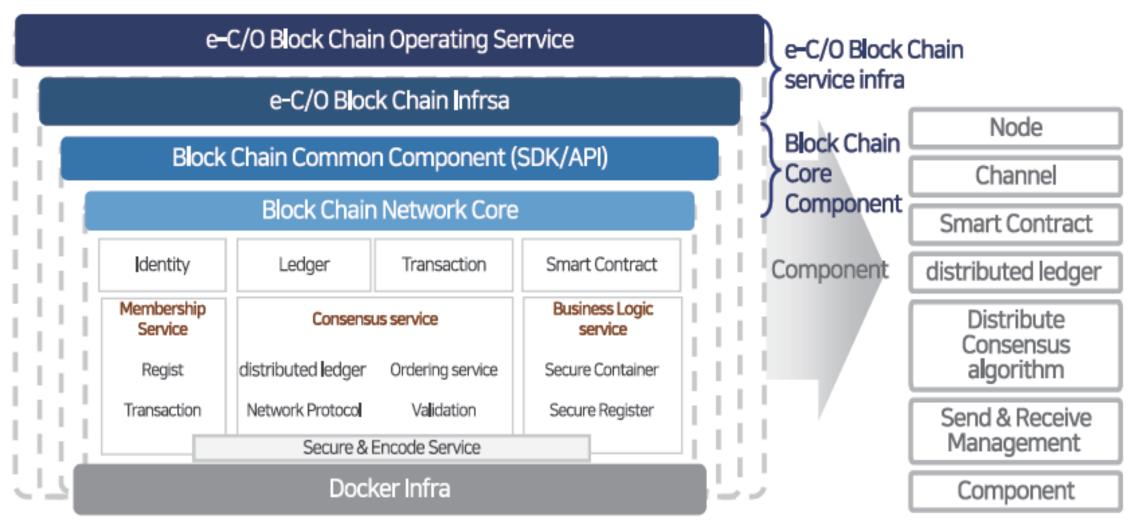


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System Configuration of EODES

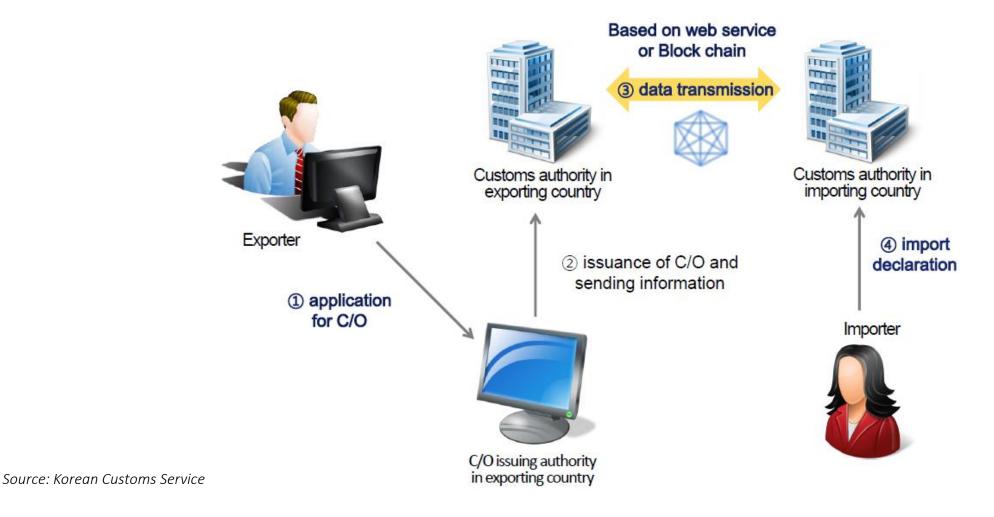






Hyperledger Fabric 1.2 (Private)

- Type of e-C/O system
 - EODES
 - Exporting Customs Authority and Importing Customs Authority exchange C/O data electronically

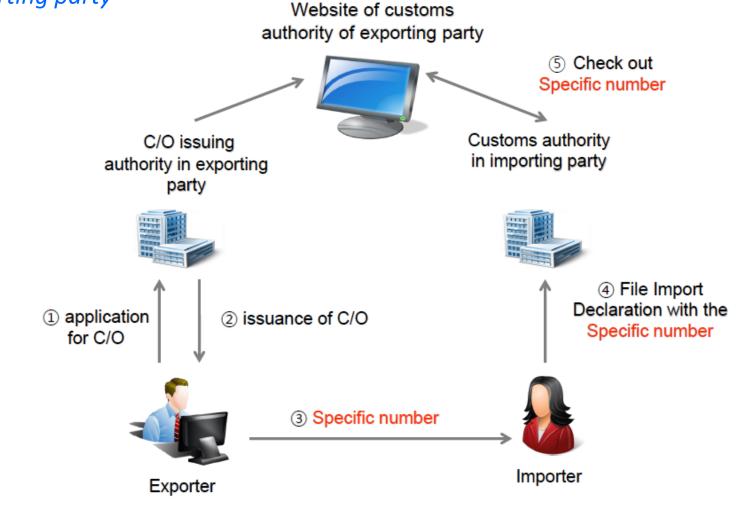


- Type of e-C/O system
 - Electronic verification system

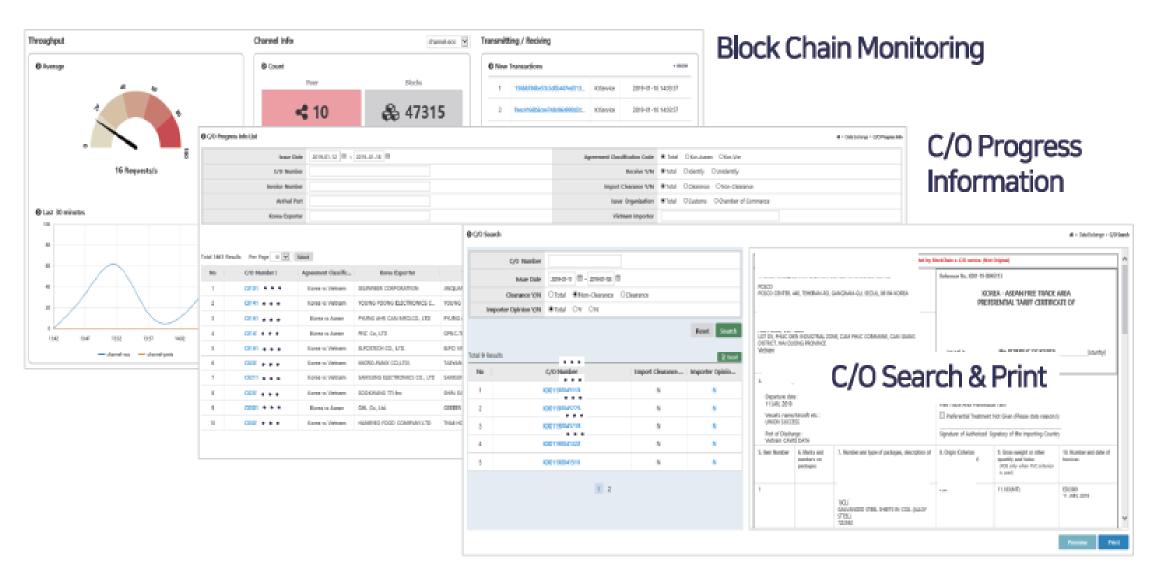
Source: Korean Customs Service

• Customs Authority in importing party can access to electronic verification system of Customs

Authority of exporting party



Blockchain Portal



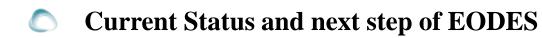
3. Conclusion

The expected effects



- Decreasing export-import company's customs clearance problems in the process of utilizing FTA -Reducing time and cost of exportimport company
 - Simplification of procedures, increasing transparency, trade facilitation

3. Conclusion



Country	Processing	Effects
China	 Starting from '16.12 About 2 million annually of certificate of origin (C/O) are being exchanged electronically 	Cost savings of 99.7 Billion won (75 Million USD) annually
Indonesia	 Starting from '20.03 About 130 thousands annually of certificate of origin (C/O) are being exchanged electronically Only the Korea-ASEAN FTA C/O Under discussion aiming for exchanging CEPA C/O data 	Cost savings of 18.1 Billion won (13 Million USD) annually
Viet Nam	 Signed MOU ('22.10) Aims to support for system development in Vietnam and system connection between the two countries 	
India	 Signed MOU ('19.05) Aims to agree technical points within 2022 Under discussion aiming for starting EODES service on '23 	

감사합니다!!

Thank you!!

नगानियान्। धन्यबाद



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