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Launch of the Proof of Concept (PoC) for International Trade Data Sharing System Using Blockchain Technology

Public-Private Partnership to Streamline the Trade Process in Global Supply Chain

NTT DATA Corporation

In July 2018, NTT DATA Corporation (Headquartered in Koto-ku, Tokyo; President & CEO: Yo Honma; hereafter “NTT DATA”) was selected as the contractor to develop a new international trade data sharing system utilizing blockchain technology, a part of the “Groundwork Project for Creating Industrial Models Using IoT: Enhanced Efficiency of Trade Procedures in Global Supply Chains” implemented by the New Energy and Industrial Technology Development Organization (hereafter “NEDO”).

This PoC aims to contribute to improved productivity and reduced export lead time for businesses (such as export/importers, freight forwarders, customs brokers, land transport firms, terminal operators, shipping firms, banks, insurers, etc.) involved in the export process including those with operations that are not yet digitized, by building an international trade data sharing system and conducting a PoC and validation in port facilities, on container shipments to North America and Asia, during fiscal 2018.

In the future, NTT DATA will work towards social implementation of international trade data sharing platform during fiscal 2019, utilizing the results of this PoC, and aiming for improved efficiency of export process in the global supply chain through public-private partnership.

[Background]

In Japan, the paper medium and PDF files are widely used when sharing information among companies while handling the trade process, requiring a great deal of time and cost to manually re-enter the data, double-check them for entry errors, and correct any mistakes. Also, in trade processes that involve multiple companies, the steps for transmitting and sharing information are not digitized, making it difficult for exporters to quickly grasp the status of a cargo.

Given these circumstances and in a bid to improve productivity and reduce export lead time for businesses involved in handling the trade process, NEDO made an open call for a project to build a data sharing system capable of sharing data relating to such matters as the cargo and various processes among a series of stakeholders including firms that are not yet digitized, and conduct a PoC and validation in specific ports.

NTT DATA has been active in this field, launching a PoC*¹ in 2016 that applied blockchain technology to the trade sector, the first such application domestically, and a consortium for an international trade data sharing platform using blockchain technology*² comprising major corporations involved in trade processing such as export/importers, maritime companies, banks, and insurance companies for the purpose of exploring and implementing a PoC toward the goal of realizing the platform. On this occasion, in addition to these past undertakings, NTT DATA proposed a PoC that shares data pertaining to cargo and various processes among stakeholders including SMEs, and following a selection process, was designated by NEDO as the contractor.

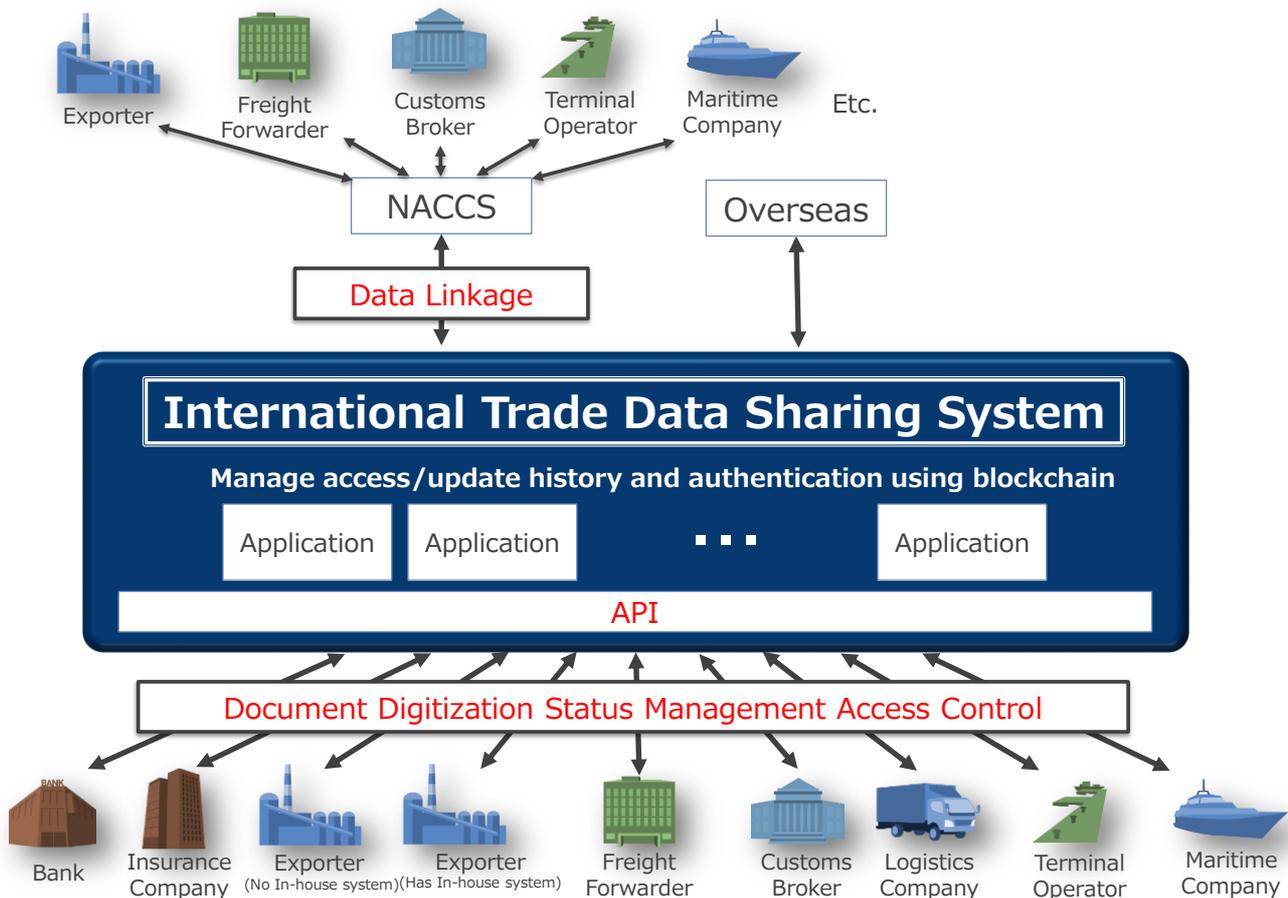


Figure 1. The Overview and Scope of the PoC

[Overview and Characteristics of the PoC]

- Trade Data Sharing System**
 We will build a data sharing system utilizing blockchains, providing a structure that enables sharing, among export/importers, freight forwarders, customs brokers, logistics companies, terminal operators, shipping companies, banks, insurance companies, and other businesses involved in the trade process, of accurate data pertaining to cargo, various processes, and other matter with guaranteed information security.
- Providing API and Other Tools That Facilitate System Linkage**
 For businesses that have their own systems, we provide an easy-to-use API that facilitates linkage with the in-house system. Also, out of consideration for the need to encourage use by high-rated mid-sized companies and SMEs grappling with data coordination among stakeholders, we will look into providing a simple interface.
- Data Linkage with Nippon Automated Cargo and Port Consolidated System (NACCS)*³**
 We will explore data linkage methods and achieve the optimal linkage with operations processed by the NACCS (processes undertaken with respect to customs and other related government agencies as well as associated private-sector tasks).
- PoC Focused on Overseas Exports (Planned)**
 Between January and March of 2019, we will conduct a PoC focused on container export to North America and Asia, in a bid to bring greater efficiency to the export process.
- Cooperating with Creation of Standards of Data and Rules for Sharing Trade Data**
 We will cooperate with research for the purpose of creating data standards and sharing rules that will allow companies who are involved in trade processes announced in separate public calls by NEDO.

[Future Outlook]

Leveraging the synergy between the consortium activities to this point and this PoC, NTT DATA will work towards social implementation of international trade data sharing platform during fiscal 2019, and aim for improved efficiency of trade process in the global supply chain through public-private partnership.

1. NTT DATA (12 July 2016). Completion of Country's First Demonstration Experiment on the Application of BlockChain to Trade Finance. [online] Available at (Japanese only): <http://www.nttdata.com/jp/ja/news/release/2016/071200.html>.
2. NTT DATA (15 August. 2017). Launch of a consortium comprised with 13 companies to develop blockchain-based trading platform which will increase efficiency in trade procedures. [online] Available at (Japanese only): http://www.nttdata.com/jp/ja/news/services_info/2017/2017081501.html.
3. NACCS stands for Nippon Automated Cargo and Port Consolidated System, an online system operated by the Nippon Automated Cargo and Port Consolidated System, Inc. and designed for shared use by the public and the private sector. It connects private businesses involved in international physical distribution to each other and to customs, giving greater speed and efficiency to international physical distribution through cargo-related operations by private-sector firms.

- “NACCS” is a registered trademark or trademark of the Nippon Automated Cargo and Port Consolidated System, Inc.
- All other product names, company names, and organization names are trademarks or registered trademarks of their proprietors.

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