

# Blockchain and Cargo Insurance

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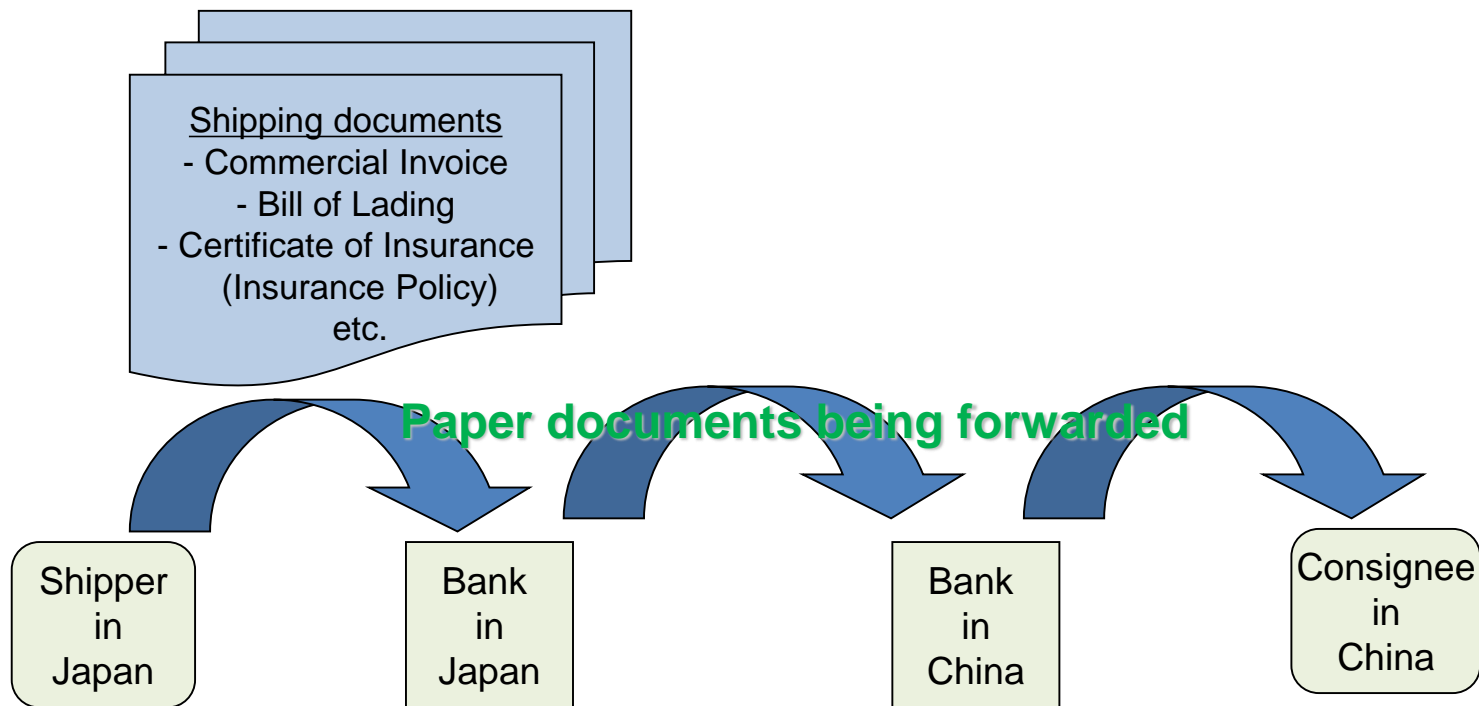
# Agenda

- A problem we see in the global trading
- Advantage of the Blockchain technology
- “Proof of Concept“ and what was proved
- What is to change?
- Putting it into practice

A problem we see in the global trading

# A problem we see in the global trading

The “conventional” flow of documents for export/import under a L/C (CIF terms)



The Bank buys the shipping documents and the Shipper gets paid.

The Consignee pays against shipping documents

# A problem we see in global trading

- The problem ;



- Why is it a problem ;



# A problem we see in global trading

- Can electronic data exchanging solve the problem?
- Pros and Cons of electronic data



# Advantage of the Blockchain technology

# Advantage of the Blockchain technology

- A major advantage of utilizing blockchain technology is the security
- It is considered impossible to forge a data on a blockchain



Traceable



Irreversible



Transparent



Paperless (...of course)



“Proof of Concept“ and what was proved

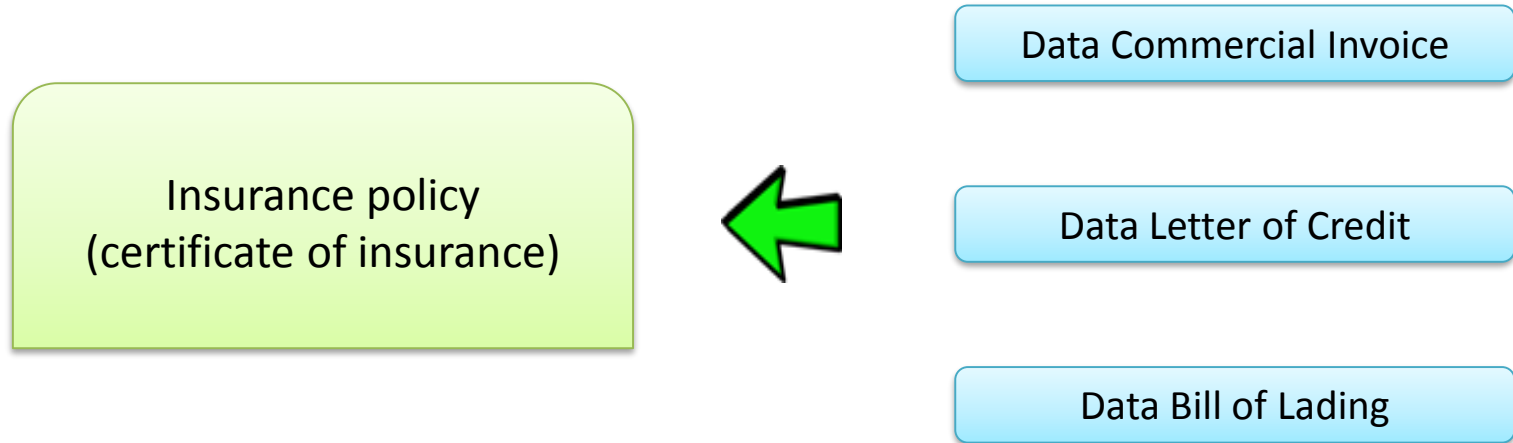
# “Proof of Concept” and what was proved

- From December 2016 to March 2017
- With NTT Data
- Purpose of PoC
  - Create a blockchain based “Data” Insurance Policy (Certificate of Insurance)
  - Transfer of the blockchain based “Data” within the parties concerned
- Also to check if it is ;
  - ✓ **Practical**
  - ✓ **Efficient**
  - ✓ **Secure**



# “Proof of Concept” and what was proved

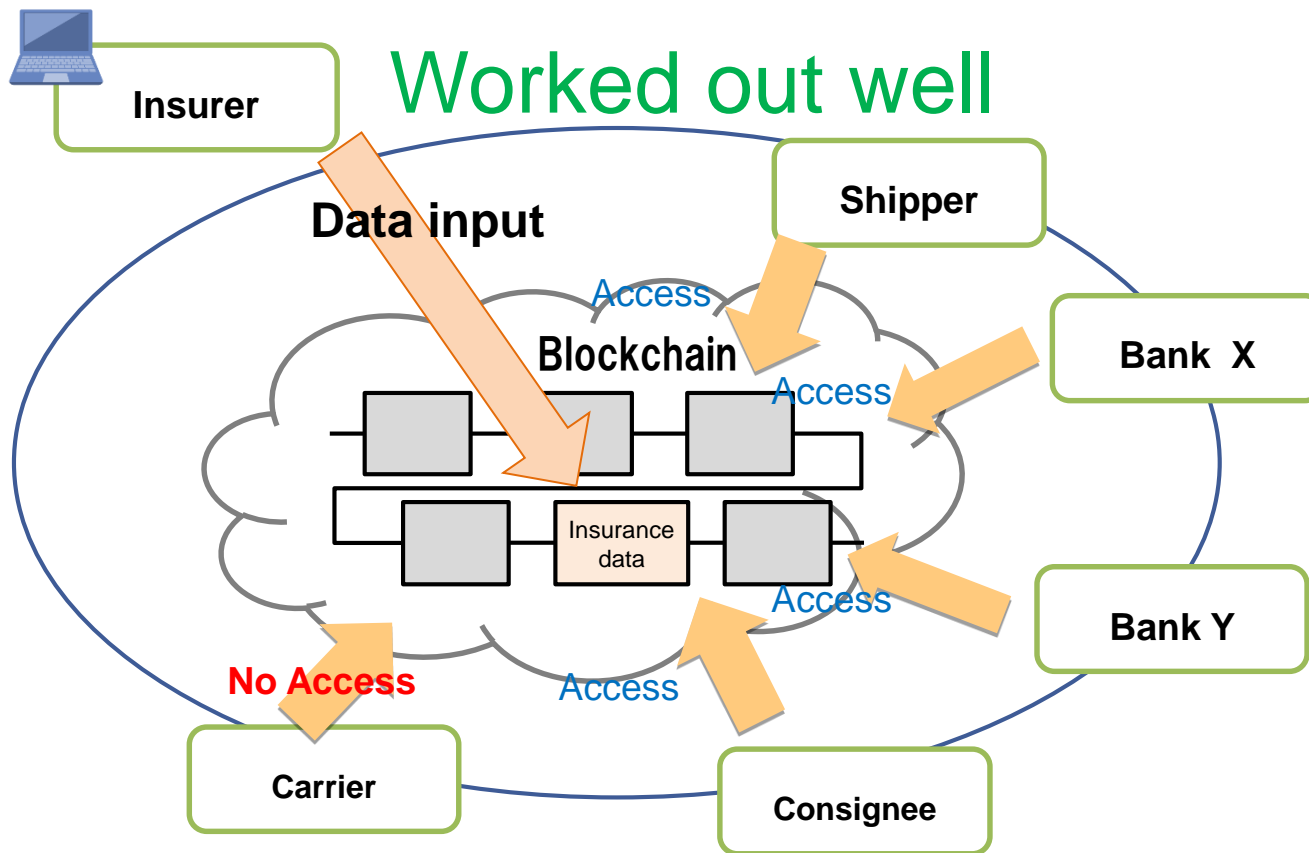
Created “blockchain based” ;



Worked out well

# “Proof of Concept” and what was proved

- Tested the accessibility to the data by the parties concerned



✓ control of who can access which data

# “Proof of Concept” and what was proved

- Proved that it will reduce the conventional clerical work

(e.g.)

Shipper - data input for insurance

Bank - verification of the terms on documents

Bank - shipping the documents

Insurer - issuing policies or certificates

## **Example of Shipper X**

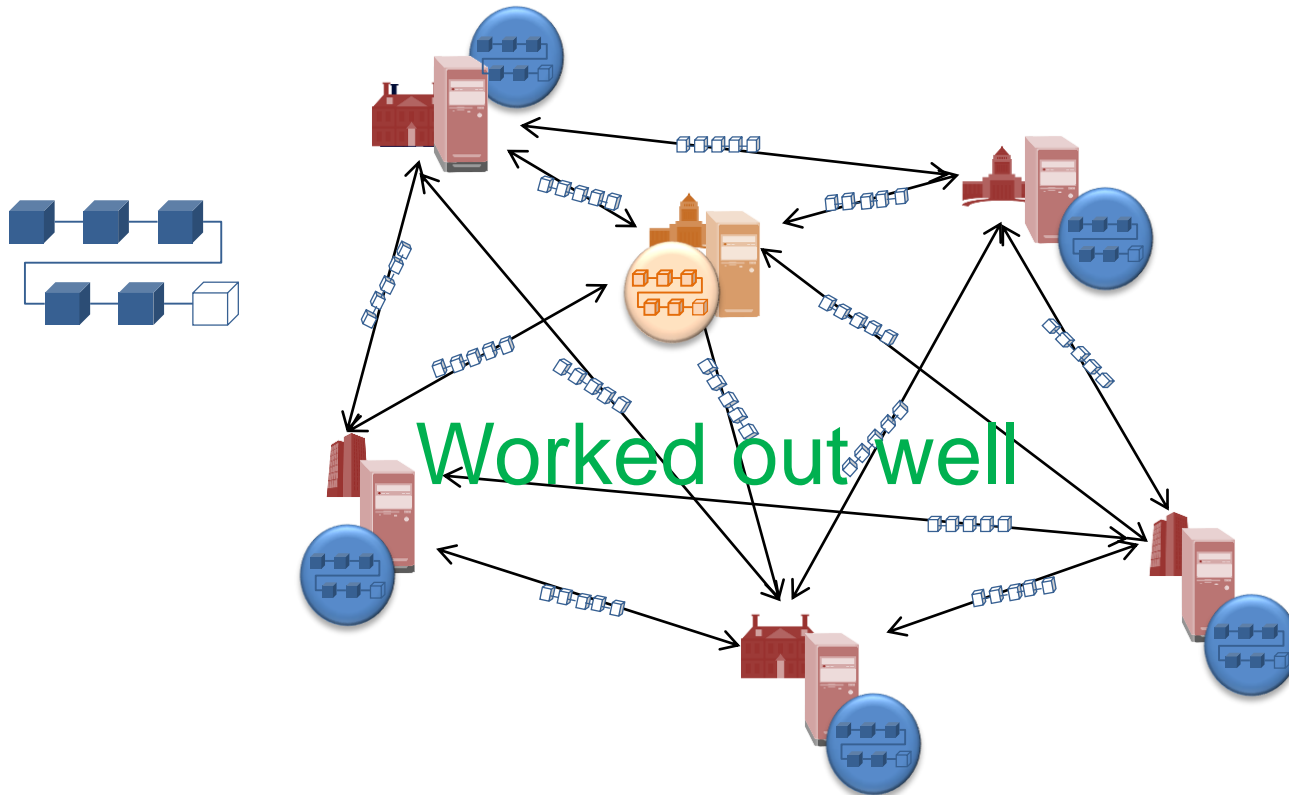
The shipping documents being data based, 85% of the Shipper's time for data inputting is presumed to be eliminated.

## **Example of Insurer Y**

The shipping documents being data based, clerical workload within insurer X is presumed to be reduced 8,300 hours per year.

# “Proof of Concept“ and what was proved

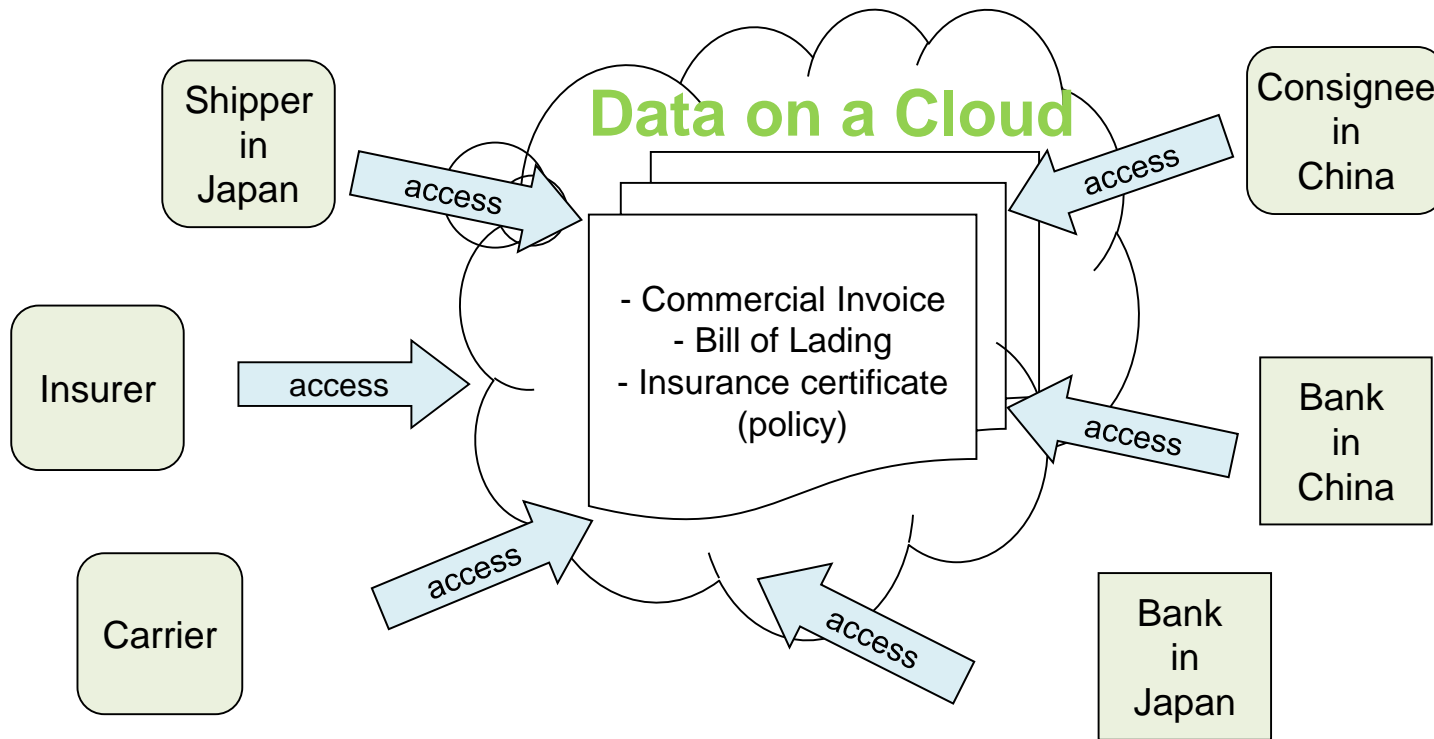
- Tested deliberately attempt hacks to the blocks



What is to change?

# What is to change?

## Image of blockchain based transactions



- Reduces the amount of conventional clerical work
- Eliminates cost for sending documents
- Eliminates time for waiting the documents
- Eliminates risk of documents being lost or misplaced



# What is to change?

Import cargo under “due course of transit” sitting at “Port X”

⇒ US\$370 million

“Provided“ the waiting time for documents being eliminated;

(Assumptions)

- LC as a payment method : 40%
- usage of Bill of Lading : 70%
- ratio of shipments shorter than 10 days : 50%

**An example of accumulation decrease :**

$$40\% \times 70\% \times 50\% = 14\%$$



(other factors to consider :Cargo picked up by L/G etc...)



At “Port X”, US\$370million x 14% = **US\$ 52M to be eliminated**



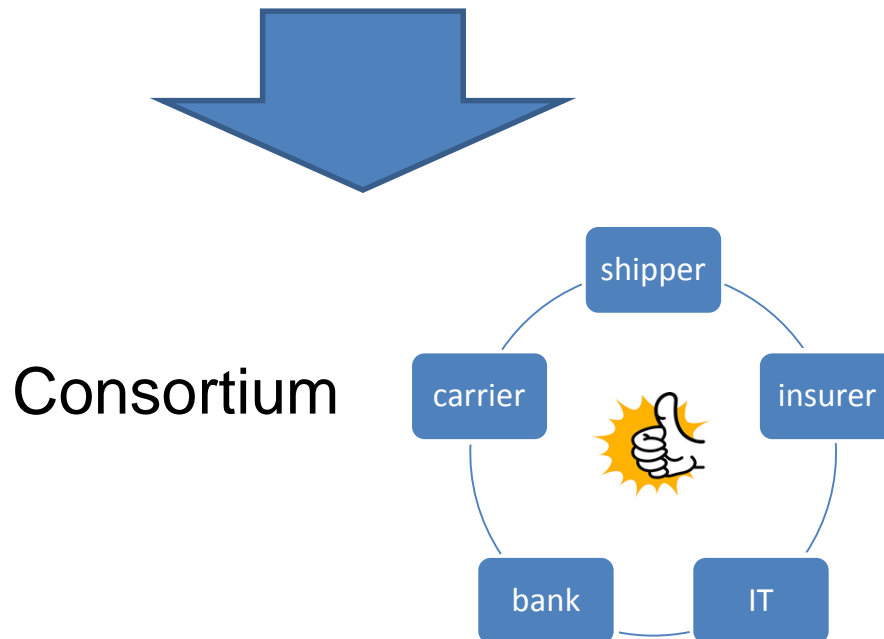
Putting it into practice

# Putting it into practice

Blockchain based electronic data exchange --- **Will it fly?**

If it's "Insurance stand alone" --- **Will not fly.... (probably)**

From an user's (or bank's) perspective --- **All or nothing**



# Putting it into practice

In terms of Marine Insurance law:

- There is no physical “assignment ” of the policy or certificate
- Could the “access” to the blockchain data by the consignee be considered as an “assignment of the policy” from a legal standpoint?

# Conclusion

- Blockchain could change the global trading
- Will bring efficiency and speed
- Could reduce unnecessary port accumulation
- Insurance is just a piece
- Key ; Cooperation, joint projects, legal status

Thank you for your attention!

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