

EXAMPLE: TRADING SCENARIO

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Example: Trading c1300 AD

- Florentine trader in Amsterdam
 - buying wool
 - danger of carrying gold
 - **letter of credit** (LoC) from Florentine bank
- Amsterdam wool merchant
 - accepts LoC for wool
 - **trusts** Florentine bank to honor LoC
 - submits LoC to their bank
- Amsterdam and Florentine banks settle accounts

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Letter of Credit (LoC)

Toy Bank, Ltd.

Issue Date: March 1, 2018

L/C Number: 23868

Toy Bank, Ltd. hereby issues this irrevocable documentary Letter of Credit to Lumber Inc. for US\$500000 payable immediately upon sight by a draft drawn against Toy Bank, Ltd., in accordance with Letter of Credit number 23868.

The draft is to be accompanied by the following documents:

1. Order Bill of Lading
2. Packing List
3. Invoice

Authorized Signatory
Toy Bank, Ltd.

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Export License (EL)

ABC Government

Department of Forestry: Inspection Services

License to Export Wood

LICENSE NUMBER: 76348

License Holder: Lumber Inc.

FOR THE PURPOSE OF EXPORTING WOOD BY SEA OR AIR

Commencing On: March 1, 2018

Ending on: March 1, 2019

Authorized Signatory,
Department of Forestry

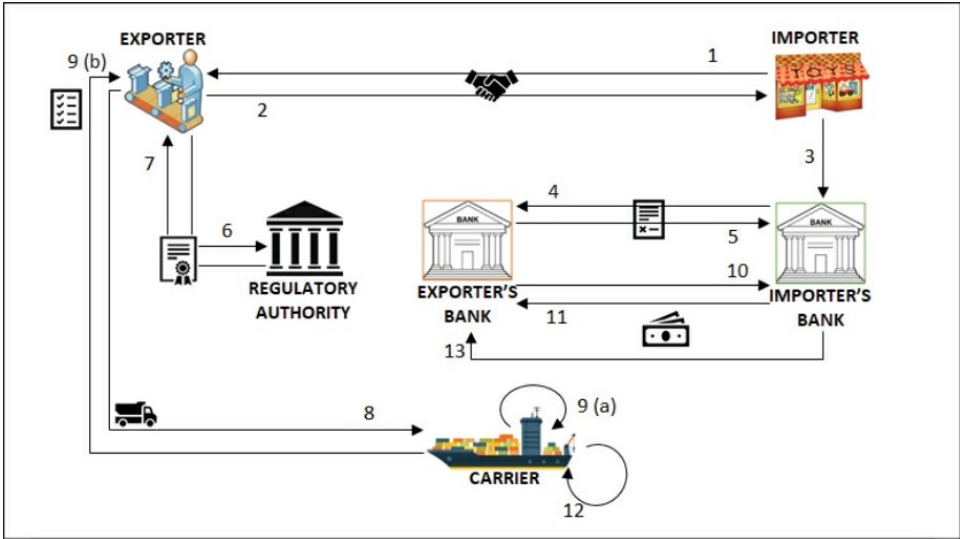
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Bill of Lading (BL)

<i>Worldwide Shippers</i>		BILL OF LADING FOR OCEAN TRANSPORT	
Shipper <i>Lumber Inc.</i>		Booking ID <i>7625901</i>	
Consignee <i>Toy Company</i>		Notify Party <i>Toy Bank, Ltd.</i>	
Place of Receipt <i>Port ABC</i>		Place of Delivery <i>Port LMN</i>	
PARTICULARS FURNISHED BY SHIPPER			
Description of Goods <i>Wood</i>		Weight <i>600 tons</i>	Measurement <i>1000m × 800 m</i>
Freight Charges <i>US\$40000</i>			
<i>Authorized Signatory, Worldwide Shippers</i>			

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Workflow



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Workflow

1. The importer requests goods
2. The exporter accepts the trade deal
3. The importer asks its bank for an L/C
4. The importer's bank supplies an L/C
5. The exporter's bank accepts the L/C on behalf of the exporter
6. The exporter applies for an E/L from the regulatory authority
7. The regulatory authority supplies an E/L to the exporter
8. The exporter prepares a shipment and hands it off to the carrier
9. The carrier accepts the goods (optionally, after validating the E/L)
 - supplies a B/L to the exporter
10. The exporter's bank claims half the payment from the importer's bank
11. The importer's bank transfers half the amount to the exporter's bank
12. The carrier ships the goods to the destination
13. The importer's bank pays the remaining amount to the exporter's bank

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Shared Assets

Asset Type	Asset Attributes
Trade agreement	ID, exporter, importer, amount, and description of goods
Letter of credit	ID, expiration date, beneficiary, amount, and a list of document types
Export License	ID, expiration date, beneficiary (exporter), carrier, approver (regulatory authority), and description of goods
Bill of Lading	ID, expiration date, shipper (exporter), consignee/beneficiary (importer), carrier, places of receipt and delivery (source and destination ports), description of goods, and freight amount
Shipment	Shipper (exporter), carrier, beneficiary (importer), description of goods, and freight amount
Payment	Amount in standard currency units

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Date Elements

Data type	Data attributes
Trade agreement	Request and acceptance status: by importer and exporter respectively
Letter of credit	Request, issuance, and acceptance status: by importer, importer's bank, and exporter's bank respectively
Export license	Request and issuance status: by exporter and regulatory authority
Shipment	Shipment Preparation and acceptance status: by exporter and carrier respectively
	Current position or location: by carrier

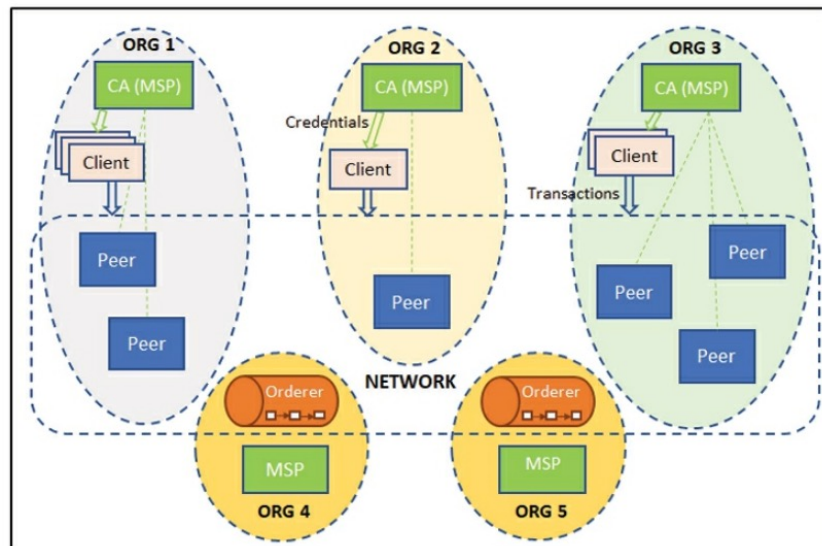
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Participant Roles

- Only an importer may apply for an L/C
- Only an importer's bank may supply an L/C
- Only an exporter's bank may accept an L/C
- Only an exporter may request an E/L
- Only a regulatory authority may supply an E/L
- Only an exporter may prepare a shipment
- Only a carrier may supply a B/L
- Only a carrier may update a shipment location
- Only an importer's bank may send money, and only an exporter's bank may receive money

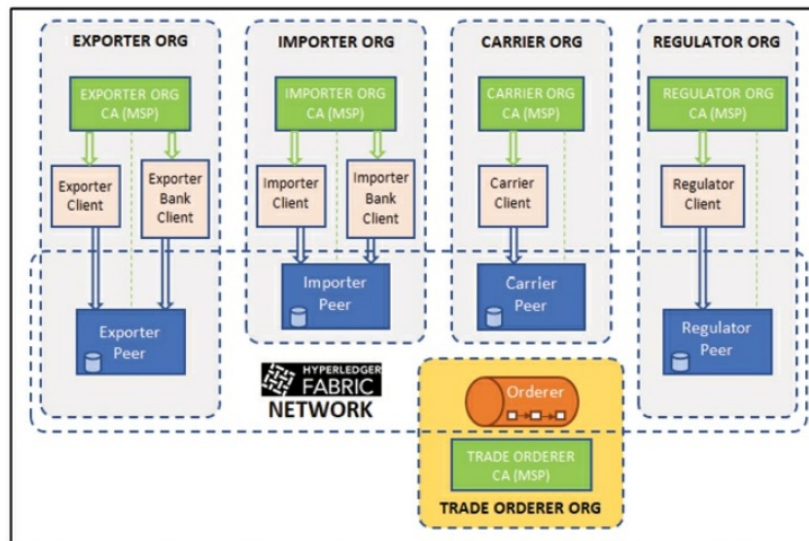
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Example Hyperledger Fabric Network



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Hyperledger Fabric Network for Scenario



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