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**PROGRAM MATERIALS**

**Program #3041**

**February 6, 2020**

## **How Trade Finance is Using Blockchain and Distributed Ledger Technology**

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# **How Trade Finance is Using Blockchain and Distributed Ledger Technology**

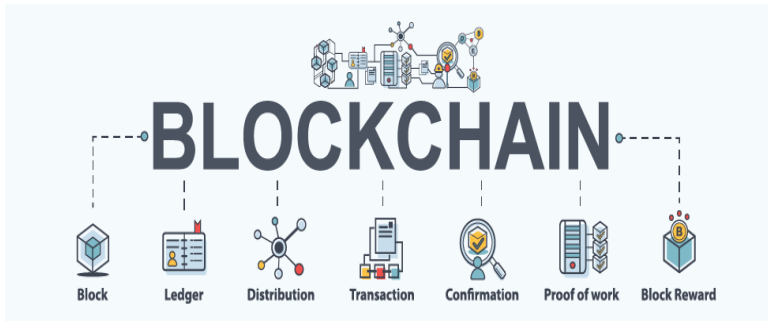
**February 6, 2020**



**Presented by:**  
**Lourdes Miranda**  
**MirandaFinIntelConsulting**



# Blockchain + Distributed Ledger Technology for the Legal + Financial Industry



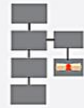
## Properties of Digital Ledger Technology (DLT)



## Smart Contracts



Option contract written as code into a blockchain.



Contract is part of the public blockchain.



Parties involved in the contract are anonymous.



Contract executes itself when the conditions are met.



Regulators use blockchain to keep an eye on contracts.

# Differences Between Blockchain + Distributed Ledger Technology

## Blockchain

- ✓ **Permissionless (public blockchain)**
  - Digital Assets
  - Transparent
  - Decentralized
  - No Authorization Required to Gain Access

Disadvantages: **More Regulatory + Internal Oversight**

- ✓ **Permissioned (private blockchain)**
  - Transparent and Anonymous
  - Varying Decentralization
  - Governance
  - Need Authorization to Gain Access

Disadvantages: **More Vulnerable to Corruption + Politics**

## Distributed Ledger Technology or DLT

- Traceable
- Transparent
- Efficient
- ✓ **Corda is one of many DLTs**
  - Corda doesn't have its own cryptocurrency



Permissionless Blockchain  
<https://bitcoin.org/en/>  
Crypto Ticker Symbol is BTC, XBT



Permissionless Blockchain  
<https://ethereum.org/>  
Crypto Ticker Symbol is ETH



Permissioned Blockchain  
<https://ripple.com/>  
Crypto Ticker Symbol is XRP

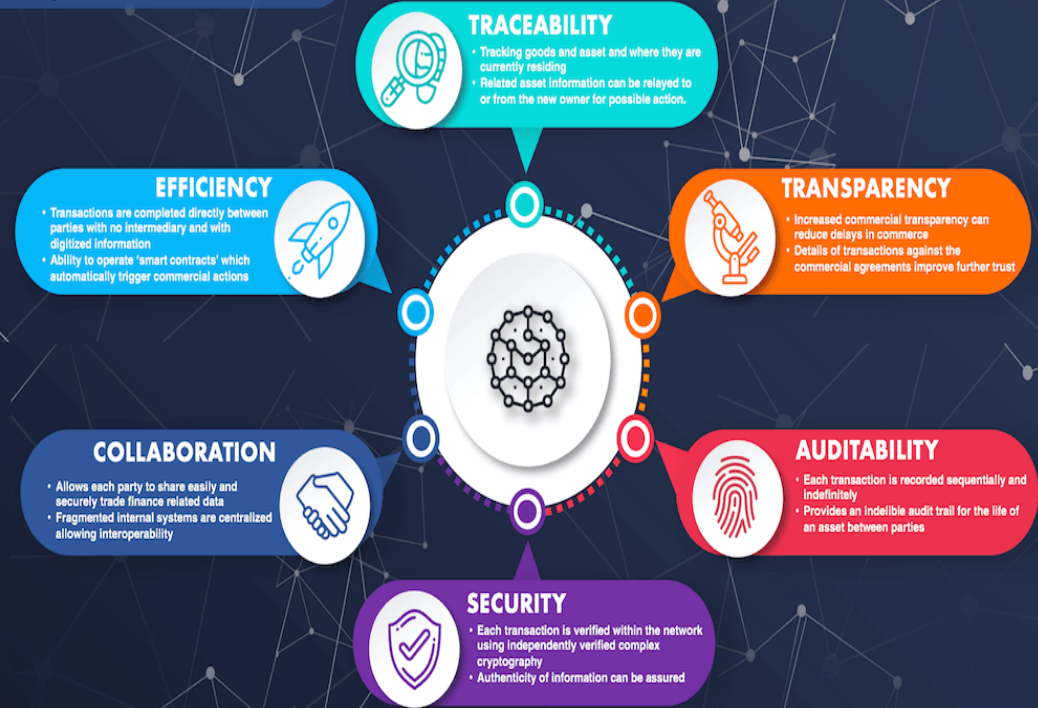


Distributed Ledger Technology  
<https://www.r3.com/>  
Corda Platform

# Trade Finance

- ☐ Traceability
  - ✓ Track goods + documents + contracts
- ☐ Transparency
  - ✓ Reduce discrepancies in documents + in contracts
- ☐ Auditability
  - ✓ Transactions are recorded sequentially
- ☐ Security
  - ✓ Verify trade + data + contracts
- ☐ Collaboration
  - ✓ Easily secure + share data + contracts
- ☐ Efficiency
  - ✓ Eliminate middlemen

## Key Benefits of Blockchain Technology in Trade Finance



<https://tradeix.com/blockchain-technology-trade-finance/>

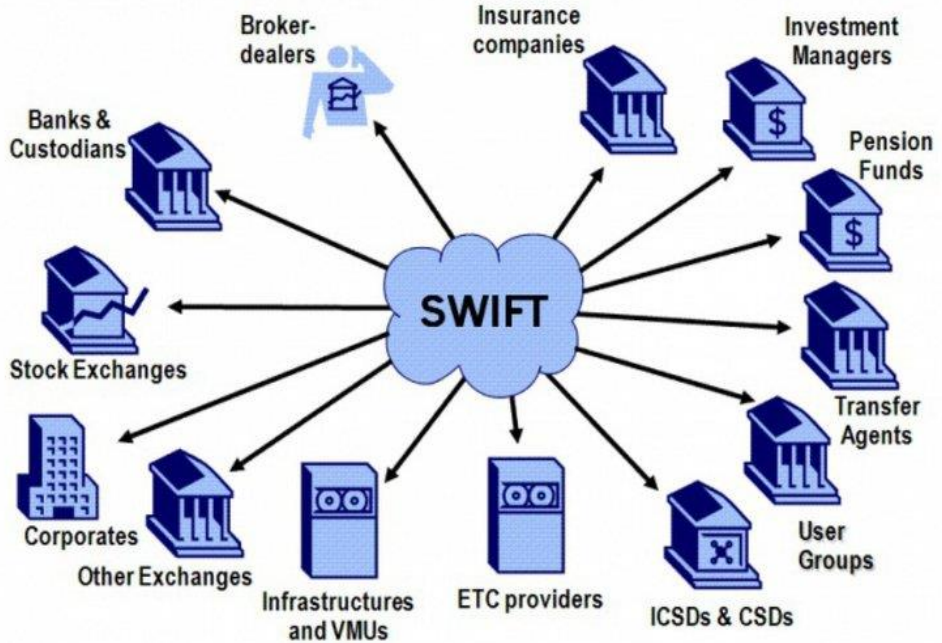


# Will Blockchain + Distributed Ledger Technology Replace SWIFT?

In 2019, the Society for Worldwide Interbank Financial Telecommunications partnered with R3—a blockchain company.



<https://www.r3.com/>  
Corda Platform



<https://www.swift.com/>

<https://www.stellar.org/>



# Smart Contracts or DApps on the Blockchain Platform

## Smart Contracts or Decentralized Applications or DApps

Solutions to:

- ✓ Eliminate middlemen for transactions
- ✓ Create a secure network to use cryptocurrency as a payment method
- ✓ Maintain records
- ✓ **Are not necessarily legal contracts**
- ✓ **DApps facilitates the legal contract process**

## Autonomous Trading Platforms

- ✓ Matches buyers and sellers

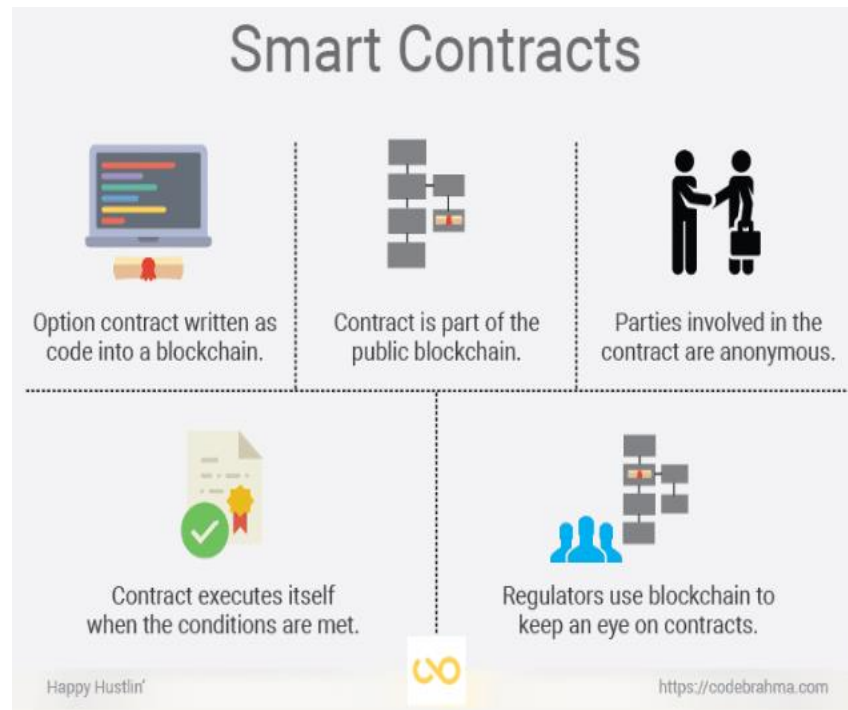
## Supply Chain Platform

- ✓ Tracks products

## DApp Challenges:

- ✓ Scalability
- ✓ Transparency
- ✓ Liability
- ✓ **Amendments**

<https://www.stateofthedapps.com/>



# Consortiums

The Global Legal Blockchain Consortium is comprised of over 300 large companies, law firms, software companies, and universities that have joined to develop standards to govern the use of blockchain technology in the business of law. The consortium is focused on:

- ❑ Data integrity and authenticity for contracts, documents, and similar data
- ❑ Data privacy and security for contracts, documents, and communications
- ❑ Interoperability between large corporate legal departments and law firms
- ❑ Productivity improvements and cost savings in the operation of legal departments and law firms
- ❑ Use of blockchain to fortify and augment existing legal technology investments adding important functionality to legacy systems to extend their useful life



GLOBAL LEGAL  
**BLOCKCHAIN  
CONSORTIUM**

<https://legalconsortium.org/>

The Trade Finance Global Consortium assists companies to access trade and receivables through their relationships with banks, funds and alternative finance houses.

- ❑ Highlight the key technology providers, the Distributed Ledger Technologies involved, banks and participants on each network
- ❑ Provide insight into the complex ecosystem of blockchain players in trade finance





# Networks and Consortia in Trade Finance



<https://www.tradelens.com/>



**Marco Polo**

<https://www.marcopolo.finance/>



<https://we-trade.com/>



<https://www.ibm.com/us-en/?lnk=m>

<https://www.voltron.trade/>



<http://www.bolero.net/home/electronic-bills-lading/>



SAFER, SMARTER AND FASTER GLOBAL TRADE

CargoX

<https://cargox.io/>

<https://www.vakt.com/>



<https://komgo.io/>



<https://www.etradeconnect.net/Portal>



<https://www.tradefinanceglobal.com/posts/whos-who-the-consortia-and-networks-of-trade-finance-revealed/>

# Takeaways

## Trade Finance

- ❑ Blockchain (Permissionless (public blockchain) / Permissioned (private blockchain))
    - ✓ Smart Contracts or Decentralized Applications or DApps
      - Are not necessarily legal contracts
      - Facilitates the legal contract process
  
  - ❑ Distributed Ledger Technology or DLT
    - ✓ SWIFT
- Blockchain Technology and Distributed Ledger Technology or DLT are not the same**
- ❑ Consortiums
    - ✓ The Global Legal Blockchain Consortium
    - ✓ Trade Finance Global Consortium
  
  - ❑ Networks and Consortia in Trade Finance

**101 Blockchains | BLOCKCHAIN VS. DISTRIBUTED LEDGER TECHNOLOGY**

### WHAT IS A DISTRIBUTED LEDGER?

A distributed ledger is a database that is decentralized, i.e., distributed across several computers or nodes. In this technology, every node will maintain the ledger, and if any data changes happen, the ledger will get updated. The updating takes place independently at each node.

### WHAT IS A BLOCKCHAIN?

The blockchain is one of the distributed ledger technology where every node gets its very own copy of the ledger. Every time someone adds a new transaction, all the copies of the ledger gets updated.

You can consider DLT as the parent technology of blockchain. blockchain market is expected to increase from half a billion USD in 2018 to 16 billion USD in 2024.

### BLOCKCHAIN VS. DISTRIBUTED LEDGER THE DIFFERENCE

The blockchain is a type of distributed ledger. However, you cannot call every distributed ledger a blockchain.

Category	Blockchain	Distributed Ledger
<b>BLOCK STRUCTURE</b>	Blockchain represents the data as a chain of blocks. This structure is not the genuine data structure of distributed ledgers. A distributed ledger is simply a database spread across different nodes. However, you can represent this data in different ways for different ledgers.	
<b>SEQUENCE</b>	In blockchain technology, you can find all the blocks in a particular sequence. Distributed ledgers do not need to follow blockchain's sequence of data. Other DLTs have a different kind of sequence of data; it depends on the technology.	
<b>POWER HUNGRY CONSENSUS</b>	In most cases, there is typically a wide usage of proof of work mechanism in the blockchain. However, there are also other mechanisms, but in the end, they also take up power. But distributed ledger doesn't need this kind of consensus, so in short, they are comparatively more scalable.	
<b>REAL-LIFE IMPLEMENTATIONS</b>	Many enterprises and governmental institutions are already using blockchain technology, but DLT projects or usage is still under development. So, it doesn't have many real-life implementations.	
<b>TOKENS</b>	In a distributed ledger technology, it's not necessary to have tokens or any kind of currency on the network. On the other hand, many blockchain platforms have some sort of token economy. However, modern blockchain technology is trying to come out of the cryptocurrency shadow.	

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## Thank You

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