

# Blockchain Technology and Its Potential Impact on Accounting, Audit & Assurance Profession

by

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An aerial photograph of a dense city skyline, likely New York City, featuring numerous skyscrapers and a river. The image is darkened to serve as a background for the text. The Chrysler Building is prominent in the center. A 'MetLife' logo is visible on a building to the left. The text 'CONSULTING COMPANIES GLOBALLY' is overlaid in white, sans-serif font on the right side of the image.

CONSULTING  
COMPANIES  
GLOBALLY

Blockchain at present, is like internet in mid 90s. Standing in the wings to change the way we live today....

The first generation of the digital revolution brought us the Internet of information. The second generation — powered by blockchain technology — is bringing us the Internet of value: a new platform to reshape the world of business and transform the old order of human affairs for the better.



# Blockchain isn't one thing; it's an architectural principle

**A blockchain is a store of records that is:**



- ✔ Cryptographically secured (but not, by default, encrypted).



- ✔ Write once, append only.



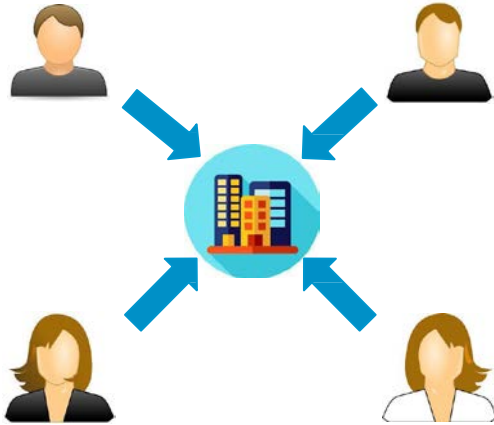
- ✔ Distributed and completely or partially replicated.
- ✔ Decentralized, in its pure form.

# What's different?

## ***Decentralization of Data in a Trustless Environment***

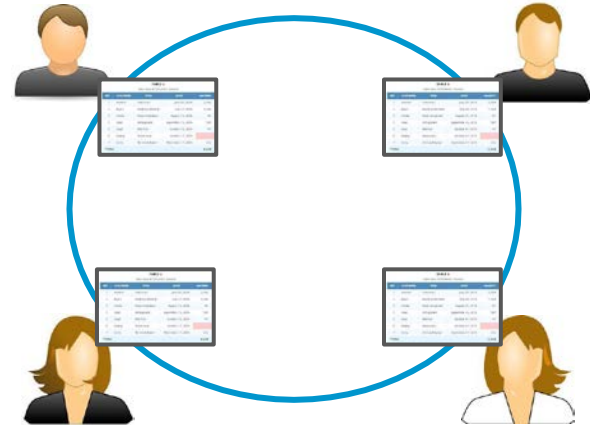
- Traditional databases are centralized and use 3rd parties and middlemen to approve and record transactions.
- Blockchain safely distributes data across the entire network and does not require any middlemen.
- The technology maintains multiple replicas

### **Traditional System**



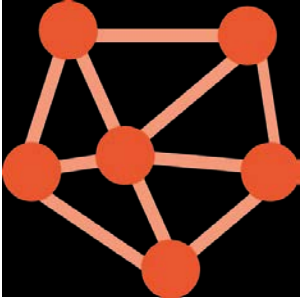
**Centralized system with stored ledger**

### **Blockchain System**



**Distributed system with stored ledger**

# Why Blockchain?



Distributed



Transparent

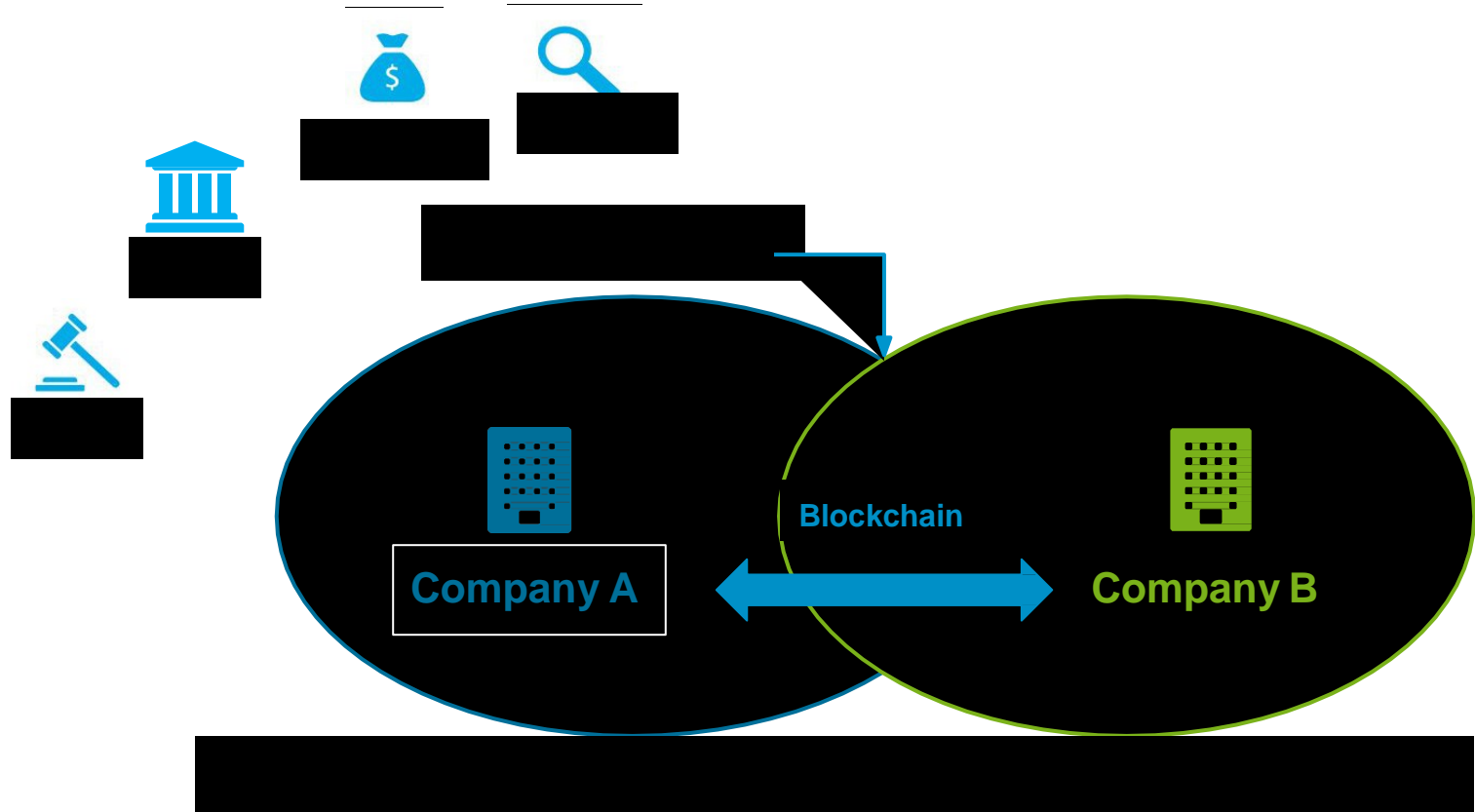


Permission-based



Immutable







# Where Can Blockchain Be Applied?

## Financial Services

Several stock exchanges around the world are piloting a blockchain platform that enables the issuance and transfer of private securities. Additionally, multiple groups of banks are considering use cases for trade finance, cross-border payments and other banking processes.

## Consumer & Industrial Products

Companies in the industrial and consumer industries are exploring the use of blockchain to digitize and track the origins and history of transactions in various commodities.

## Life Sciences & Healthcare

Healthcare organizations are exploring the use of blockchain to secure the integrity of electronic medical records, medical billing, claims and other records.

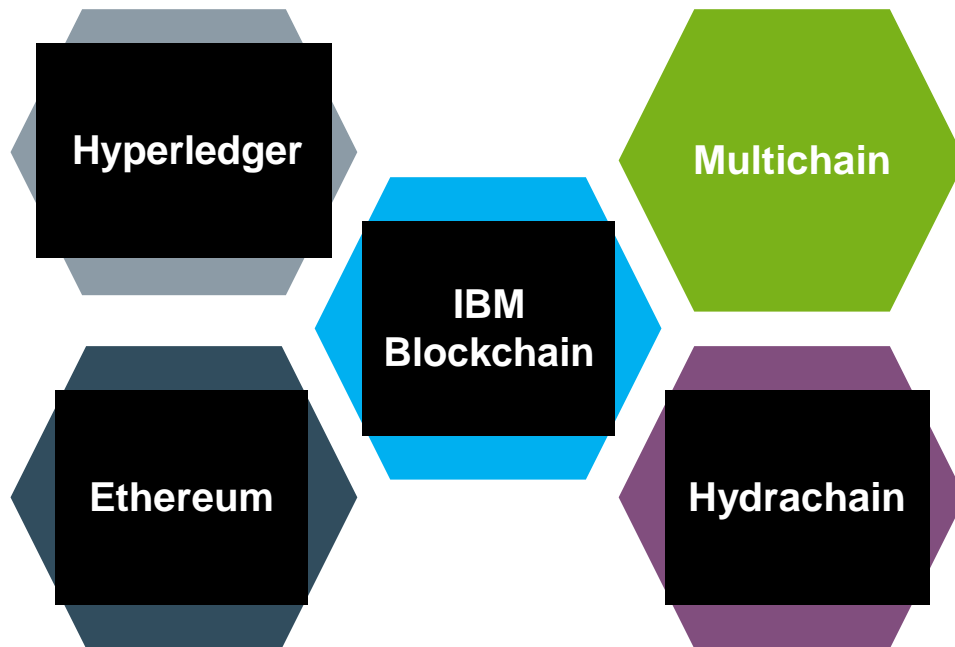
## Public Sector

Governments are exploring blockchain to support asset registries such as land and corporate shares.

## Energy & Resources

Ethereum is being used to establish smart-grid technology that would allow for surplus energy to be used as tradable digital assets among consumers.

# Technical Platform



Organizations working on multi blockchain platform integrations

# Traditional Database or Blockchain platform

1. A number of participants who don't have institutional trust in one another;
2. A desire to work without an intermediary (either because of cost or because one isn't available); and
3. A need for a complete definitive log of transactions.



# Few of the examples in Accounting/Assurance

Inter-bank  
Reconciliation

Inter-bank  
Transactions

Inter-company  
Transaction

AR/AP Balance  
Verification

Smart Contracts

# Key Benefits

- ✓ Data Security
- ✓ Transparency
- ✓ Service Orientation
- ✓ Democratization of information
- ✓ Faster Transactions
- ✓ Reduced Cost

*Thank You!*