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Module 2

Blockchain Networks

Outline

- Overview of active networks
- TradeLens - Improving global trade
- IBM Food Trust - Supply Chain Transparency
- IBM World Wire Global Payments
- Decentralized and Trusted Identity
- Further Examples by Industry
- Key Players for Blockchain Adoption

Active Networks

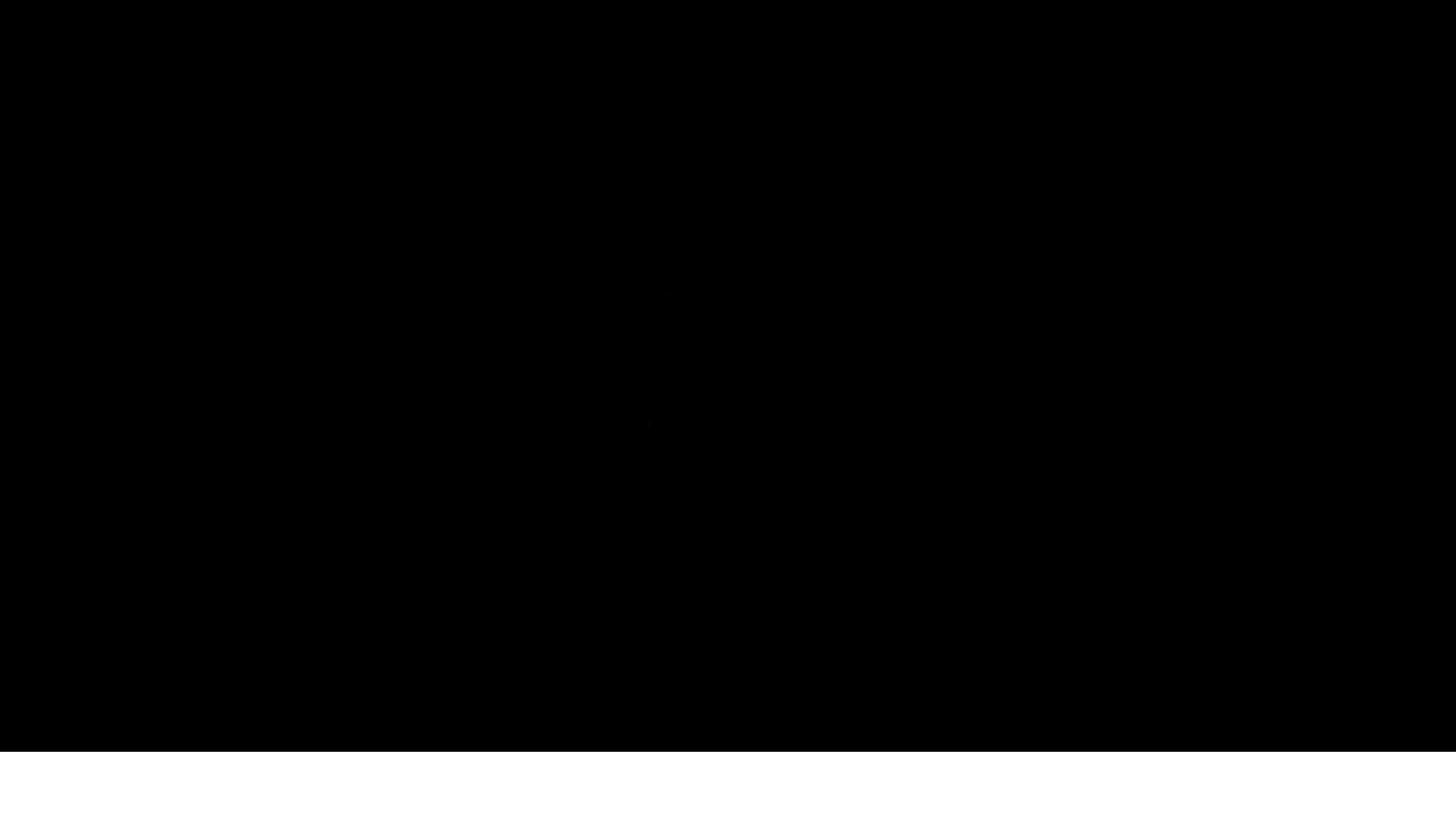
- IBM is making blockchain real for business with cross industry solutions and 100s of active networks. The following are some of initiatives of IBM.
- Tennet – Blockchain is used to balance the electricity grid in Germany by storing and releasing electricity to and from the batteries.
- We Trade – Is a blockchain based consortium of banks based in Europe. This provides trade finance to small and medium customers.

Tradelens

- Tradelens is an open, extensible platform for sharing, shipping events, messages and documents across all the actors and systems in a supply chain ecosystem.
- Provides shared visibility and shared state for container shipments.
- Increased speed and transparency for cross border transactions through real time access to container events.
- Reduced cost and increased efficiency through paperless trade.

Food Trust for supply chain transparency

- IBM Food Trust is a set of modules providing traceability to improve food transparency and efficiency.
- Blockchain is used to create a trusted connection with shared value for all ecosystem participants, including end consumers.
- Reduce impact of food recalls through instant access to end to end traceability data to verify history in the food network and supply chain.
- Helping farmers.
- Help address food born illnesses.





IBM World Wire

- IBM Blockchain World Wire is an integrated network for real time clearing and settlement.
- Allows banks and financial institutions to send and settle payments around the globe with finality in a matter of seconds.
- Eliminates enduring challenges that have long hampered the cross border payments industry.
- Higher visibility of transactions with reduced disputes.
- Secure network with interaction and eligibility criteria as well as robust access controls.

Decentralized and trusted identity



- IBM initiative pushes identity to the edge of the network.
- Cryptographic point to point exchange of identity.
- Based on Hyperledger Indy technology.
- Every person, organization and thing has a digital wallet to control the flow of their identity.



Further examples by industry



Financial	Public Sector	Retail	Insurance	Manufacturing
<ul style="list-style-type: none">• Trade Finance• Cross currency payments• Mortgages• Letters of Credit	<ul style="list-style-type: none">• Asset Registration• Citizen Identity• Medical records• Medicine supply chain	<ul style="list-style-type: none">• Supply chain• Loyalty programs• Information sharing (supplier – retailer)	<ul style="list-style-type: none">• Claims processing• Risk provenance• Asset usage history• Claims file	<ul style="list-style-type: none">• Supply chain• Product parts• Maintenance tracking



Key Players for Blockchain Adoption



Regulator

- An organization who enforces the rules of play
- Regulators are keen to support Blockchain based innovations
- Concern is systemic risk – new technology, distributed data, security



Industry Group

- Often funded by members of a business network
- Provide technical advice on industry trends
- Encourages best practice by making recommendations to members



Market Maker

- In financial markets, takes buy-side and sell-side to provide liquidity
- More generally, the organization who innovates
- Creates a new product and business process, or a new business process for an existing product