THE CURRENT STATE OF BLOCKCHAIN

MPIAF Conference 2019
Speaker: David Pope

Outline

Blockchain Basics

- Benefits
- Challenges
- Case Study

Regulatory Update

- Domestic Action
- International Action

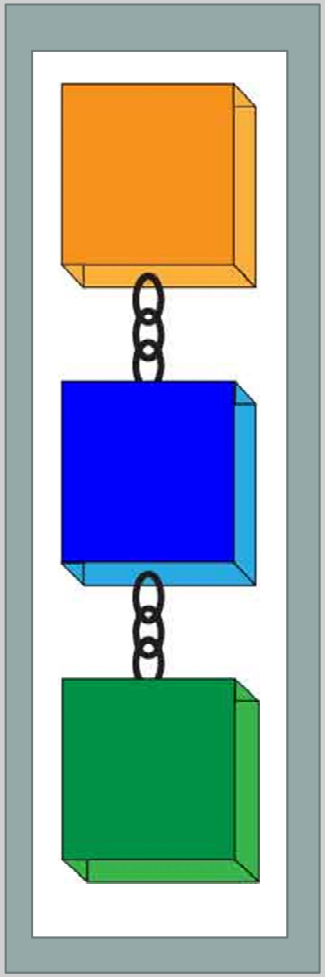
Technology Applications

- Accounting and Auditing

BLOCKCHAIN BASICS

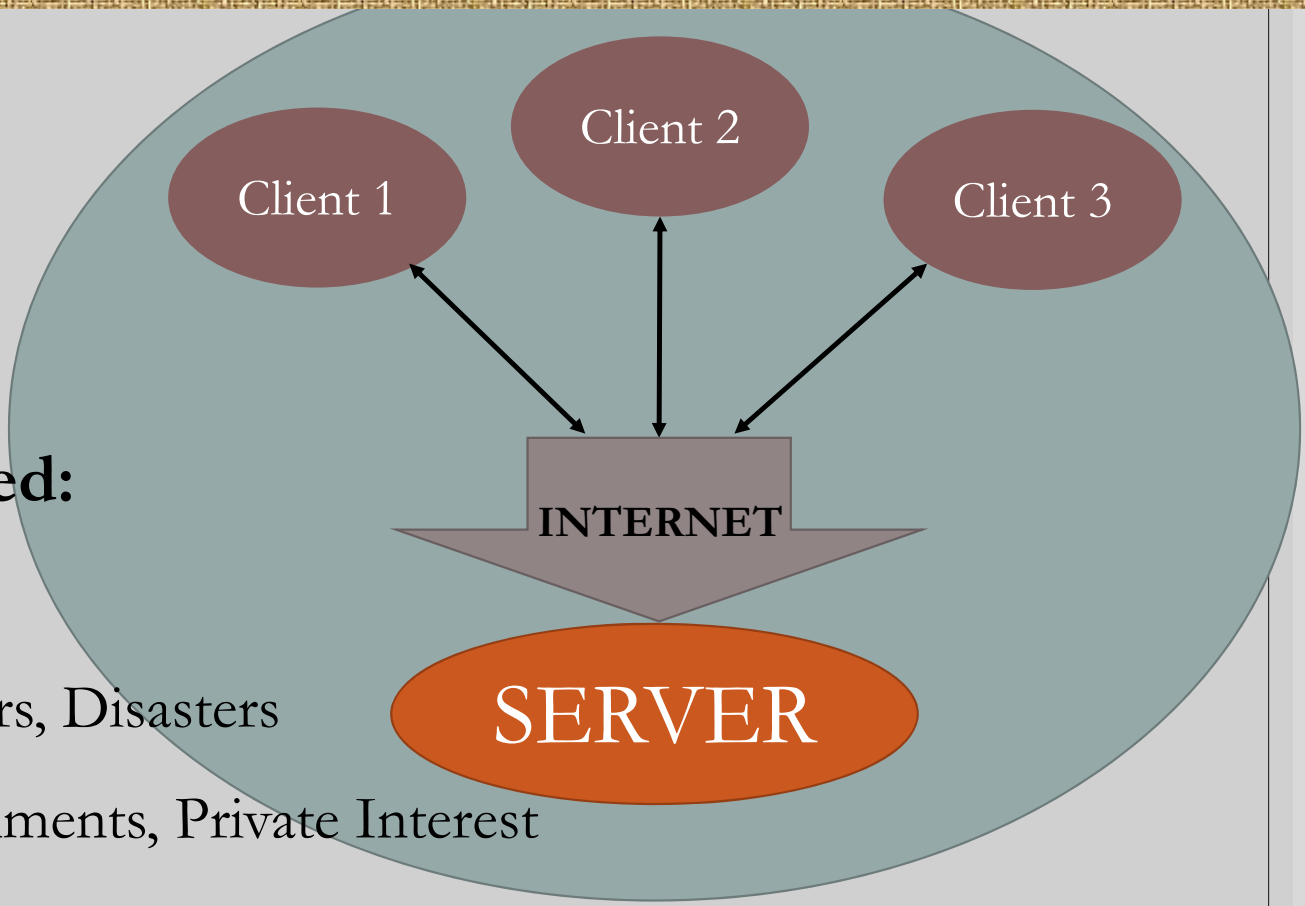
What is Blockchain?

- **Ledger**
- **Cryptographically Secured**
- **Timestamped**
- **Distributed**



Centralized Networks

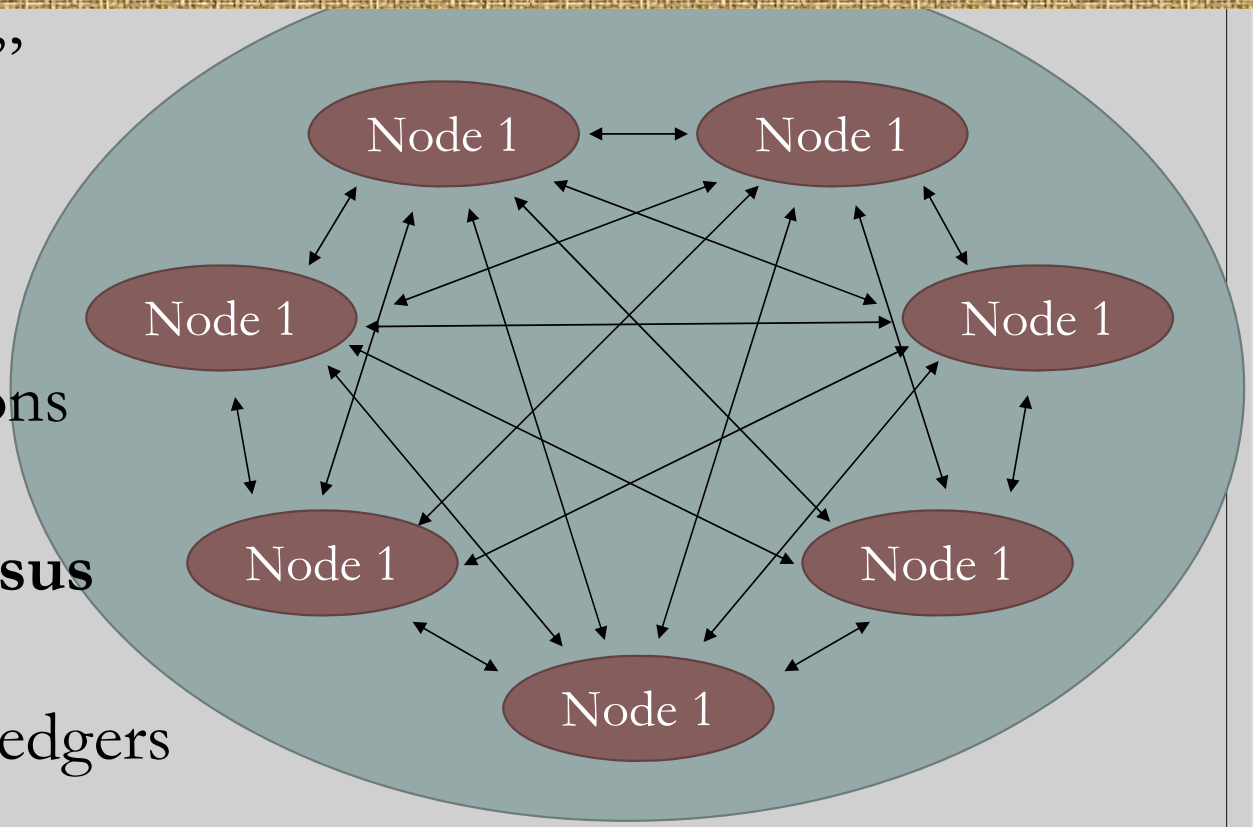
- Clients request info
- Servers respond



- Servers are **Centralized:**
  - "Honey-Pots"
  - Attack-Prone: Hackers, Disasters
  - Controllable: Governments, Private Interest

Distributed Networks

- Nodes == "Participants"
- Each maintain ledger
- Work to verify transactions
- Network forms **Consensus**
- Nodes update personal ledgers
- Each block is built on the previous



Benefits

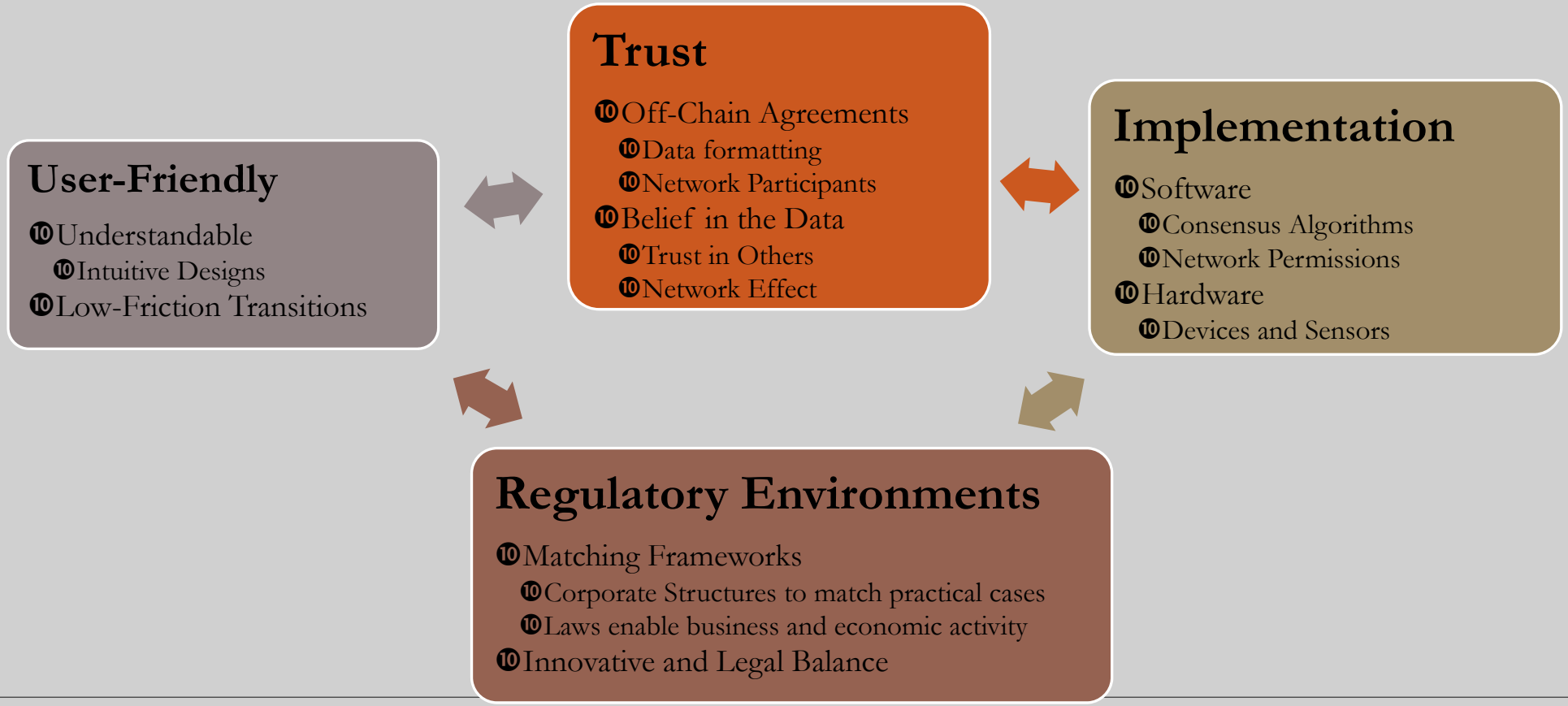
- Reduce Process Frictions
  - Lower communication and transmission costs
  - Decrease or eliminate human-related bottlenecks and risks
  - Transparent or Permissioned chains simplify verification and audits

- Reduce Counter-Party Risk and Fraud
  - Records maintained by several nodes – no "honey-pot"
  - Cryptographically secured =
  - Self-auditability in a single trusted ledger
    - Case Study: MiniScribe

Case Study: MiniScribe

- Shining company in 1980s
  - Winning contracts
  - Beating Earnings
- Shipping Bricks
  - Shortfall of $2 million in inventory
  - Magic Accounting
- Financial Statement Fraud
- Looks like someone else? 2008 Lehman Brothers

Challenges


Trust
Off-Chain Agreements
Data formatting
Network Participants
Belief in the Data
Trust in Others
Network Effect
Implementation
Software
Consensus Algorithms
Network Permissions
Hardware
Devices and Sensors
User-Friendly
Understandable
Intuitive Designs
Low-Friction Transitions
Regulatory Environments
Matching Frameworks
Corporate Structures to match practical cases
Laws enable business and economic activity
Innovative and Legal Balance

GLOBAL REGULATORY UPDATE

Domestic Action

Utility Tokens:

- Considered: ND, OK, RI, SC, U.S. Congress
- Enacted: CO, MT
- Implemented: WY

Nature of Digital Assets:

- Considered: MO, SC
- Implemented: WY

Blockchain-Based LLCs:

- Considered: IL
- Implemented: VT

Personal Data Trust Services:

- Considered: IL

Governmental Operations:

- Considered: CA, CO, CT, OH, NY, NY
- Implemented: UT

Taxes:

- Considered: CO, IA, IN, NY, RI, U.S. Congress
- Enacted: OH
- Implemented: WY

Financial Technology Sandbox:

- Considered: SC, WV
- Enacted: UT
- Implemented: WY

Uniform Regulation of Virtual Currency:

- Considered: CA, HI, NV, OK, RI, LA

Money Transmission:

- Considered: HI, IA, RI, SC, TX
- Enacted: UT
- Implemented: WY

Electronic Corporate Records:

- Considered: CT, IA, IL, MO, ND, NJ, NV, OK, TX
- Enacted: AR, SD, WA
- Implemented: WY

Source: Wyoming LSO, May 2019

International Action

Liechtenstein's Digital Asset Definitions:
- The Government of Liechtenstein

New Financial Technology Sandboxes:
- France
- Abu Dhabi/United Arab Emirates

Yes to Bitcoin:
- US, Canada, Australia, EU, Finland, Belgium, Cyprus, UK, Bulgaria, Germany

Identity and Government Processes:
- Malta
- Estonia
- United Arab Emirates
- Switzerland
- Singapore

Privacy-Focused Digital Assets:
- Japan's Financial Services Agency
- Cyberspace Administration of China

Classes of Digital Assets:
- UK's Financial Conduct Authority
- European Securities and Markets Authority (EU)

Financial Instruments
- European Securities and Markets Authority (Opposing)
- German Federal Financial Supervisory Authority

Airdrops:
- The People's Bank of China

Source: Wyoming LSO, May 2019, Blockchain Council, Investopedia

APPLICATIONS IN PRACTICE

Industries	Specific Use Cases	Projects *
Supply Chain and Shipping	Food Source Tracking	Maersk IBM Food Trust Beefchain
Finance	Corporate Records, Tokenized Assets and Investments, Personal Finance	R3 Corda consortium tZero, Vaultbank Drawbridge, Blockfi JP Morgan
Manufacturing	Quality Assurance, Supply Chain	NIST
Identity	Self-Sovereign ID, Digital Identities	Civic, Sovrin Azraq Refugee camp + World Food Program Microsoft
Education	Student Records, Research	Learning Machine Spartan Blockchain + Michigan State University ODEM
Healthcare	Credentialing, Medical Records	ProCredEx + Hashed Health Medicalchain
Intellectual Property	Music Production, Artwork, Writing	Peertracks
Accounting	**Auditing**	**PwC, Deloitte, EY** **ZK Labs**

Authors

David Pope
(CPA CGMA)

David is a co-Founder of Wyoming Blockchain Coalition and been heavily involved with the current legislation process regarding the presentation's information.

As a successful CPA in the region, he has transferred his tax knowledge into applying blockchain solutions into his work.

Contact: davidpope@dapcpa.org

Sawyer Ruben

Sawyer is a student at Michigan State University studying for his B.S. in Computer Science, with a focus in Finance and Data Science.

He has been involved in the blockchain space for a few years, helping with the Wyoming Blockchain Coalition, and now Spartan Blockchain Solutions.

Contact: rubensaw@msu.edu