PRESENTED BY:

Truman Esmond
Vice President
Solutions & Partnerships
AAIS

Understanding Blockchain Technology
Center for Insurance Policy & Research: "*Future of Blockchain In Insurance*"
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NAIC & The CENTER for INSURANCE POLICY and RESEARCH
National Association of Insurance Commissioners

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Member Focused Advisory Solutions

Blockchain: Impacting the Future of Insurance

Immense Transformational **Potential**
- – Security and **Control** of owned Data
- – Reduced **friction**
- – **Trust** in Trustless Transactions
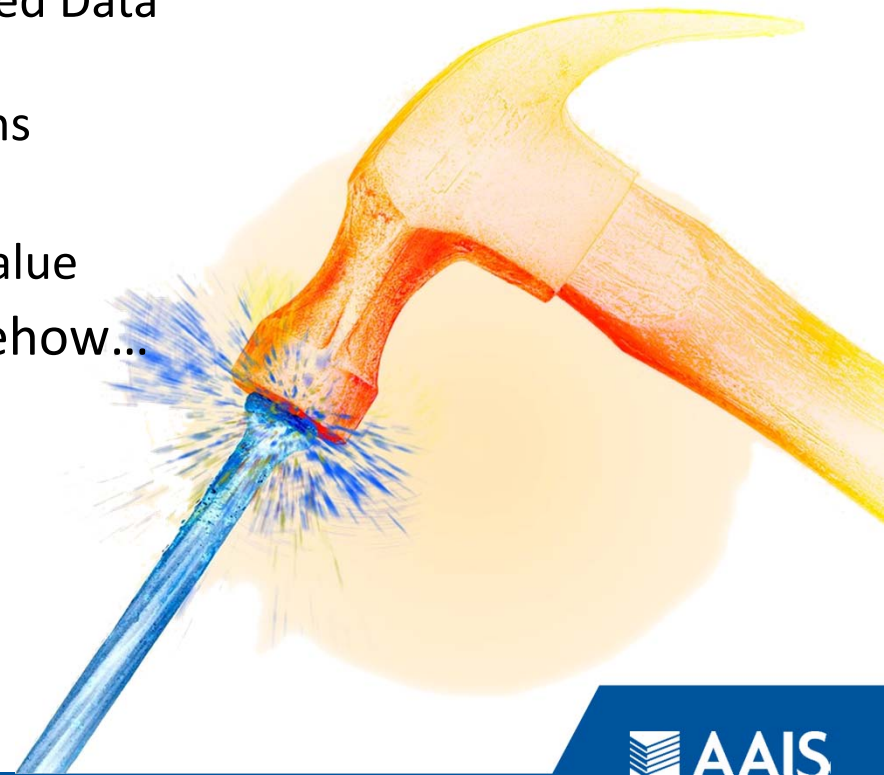
Tons of Hype & Activity
- – Little Actionable, Practical Value

Blockchain **Feels "forced"** somehow...
- – Easier with other methods

Adoption **Seems Slower**

What's happening now?

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Blockchain Is Dead! Long Live Blockchain!

- "Moving more towards Distributed Ledgers…" (trending?)

- "Trough of disillusionment" (Gartner)
  - early concepts/ideas failing (or not moving)
  - ICOs, "hyped" concepts, BTC volatility etc.
  - "Pure" models are awaiting traction

- Enterprise Blockchain is being **proven**
  - Emerging "gated" **Communities**

- **Key concepts** are holding up and evolving, and *rapidly*

?

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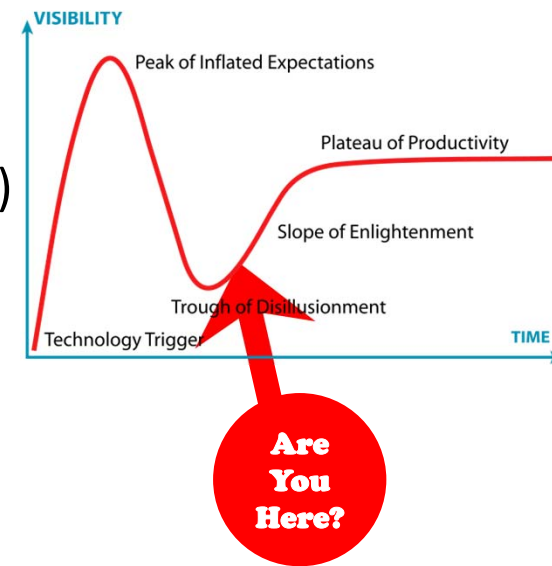
Lets Get Caught Up on Blockchain

- Key Definitions:
    - Distributed Ledger and Blockchain
    - Smart Contracts (logical vs technical)
    - Hashes and "off chain" information
- Platforms (LTS), Business Models, Consortia
- Consensus and Community:
    - Public, Permissioned, Private
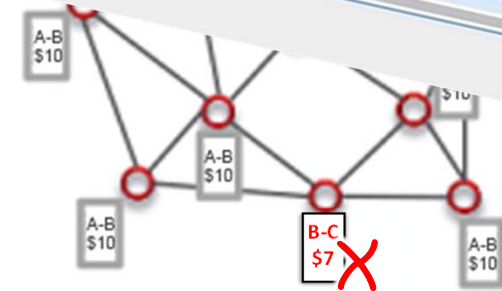   - Government and Governance

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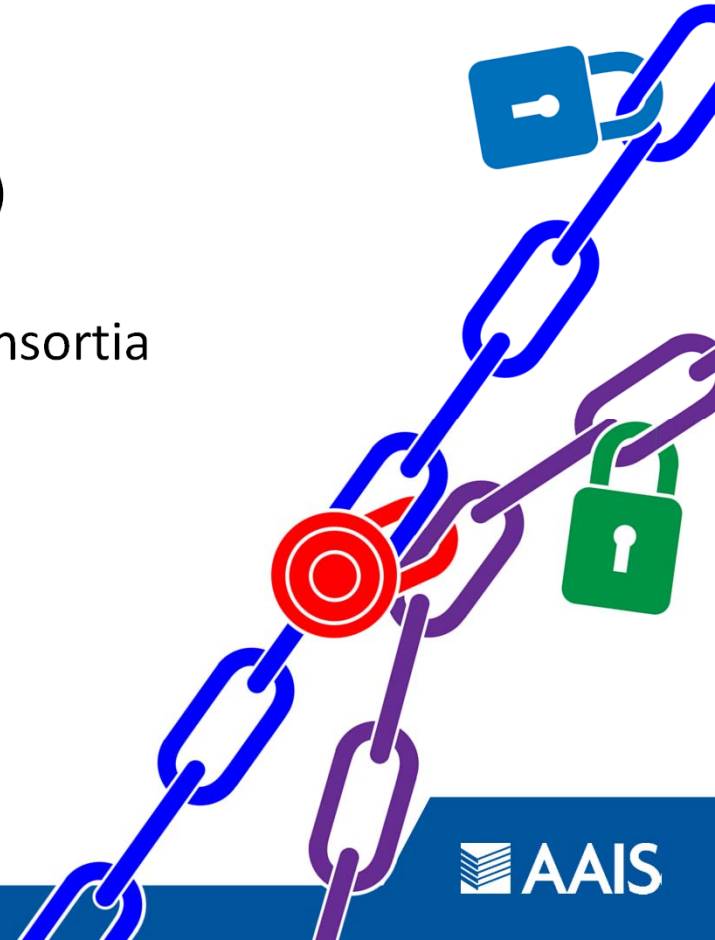
The Basics: So WTH is Blockchain?

- **Distributed Ledger** Technology
  - *"A shared ledger for recording the history of transactions, that cannot be altered."*
    - -IBM
- Common Definition:
  - *"A **blockchain** is a peer-to-peer **distributed ledger** forged by **consensus**, combined with a system for "**smart contracts**" and other assistive technologies."*
    - -Hyperledger.org
- *"Blockchains" today:*
  - Interrelated Ledgers
  - support complex transactions
  - data security/isolation
  - enterprise use cases
 - private/permissioned networks

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Smart Contracts

- **Logical:** Automated, objective execution of "real world" contract terms, features or enforcement.
  - Parametric product feature
  - Triggered audit
  - Paid Commission
- **Technical:** Trusted computer code that defines and automates logic to add data to the Ledger and interact with trusted resources.
  - Stakeholder(s) create "chaincode"
  - Vetted by Community/Authority
  - Deployed by Governance
  - Executed by network Peer Nodes
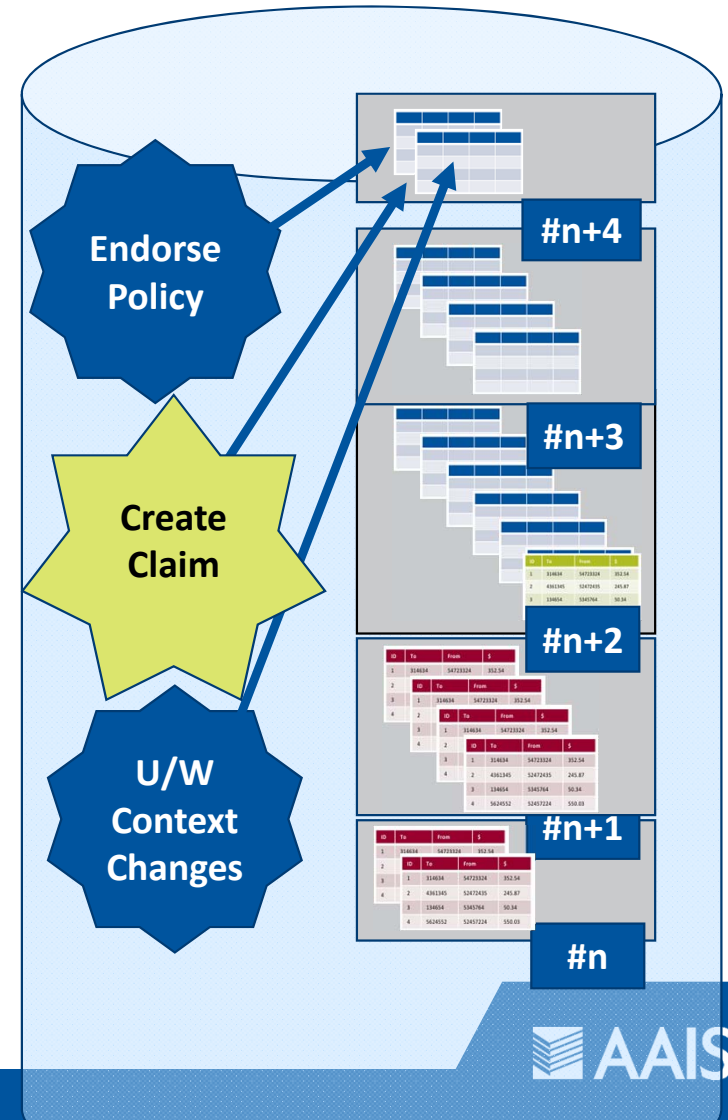
Immutable Data and "Hashes"

- Immutable Ledgers and "on-chain" data issues
  - Weight members must bear
  - Enterprises don't want data "shared"
  - Performance when ledgers are large
  - GDPR and "right to be forgotten"
- A "Hash" is a mathematical function to obscure the underlying data, and create a "fingerprint"
- "Hashes" of data (versus "raw" or "cleartext" data) are stored on-chain
  - to obscure/secure source data
  - create referential and data integrity evidence
 - with a lightweight and breakable pointer

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Business Models on the 'Chain

Private/Permissioned Blockchain Networks vs **Public**
- Known Organizations/Individuals
- Governance/Authority/Transparency
- Turn Network into *Community*

Who's Committed?

Speed   **Impact**

EVOLUTION

Single Company/Pilot Model

Founder Network (of **Partners**)

Cross-Industry Network

Competitor Network

Policyholder Network

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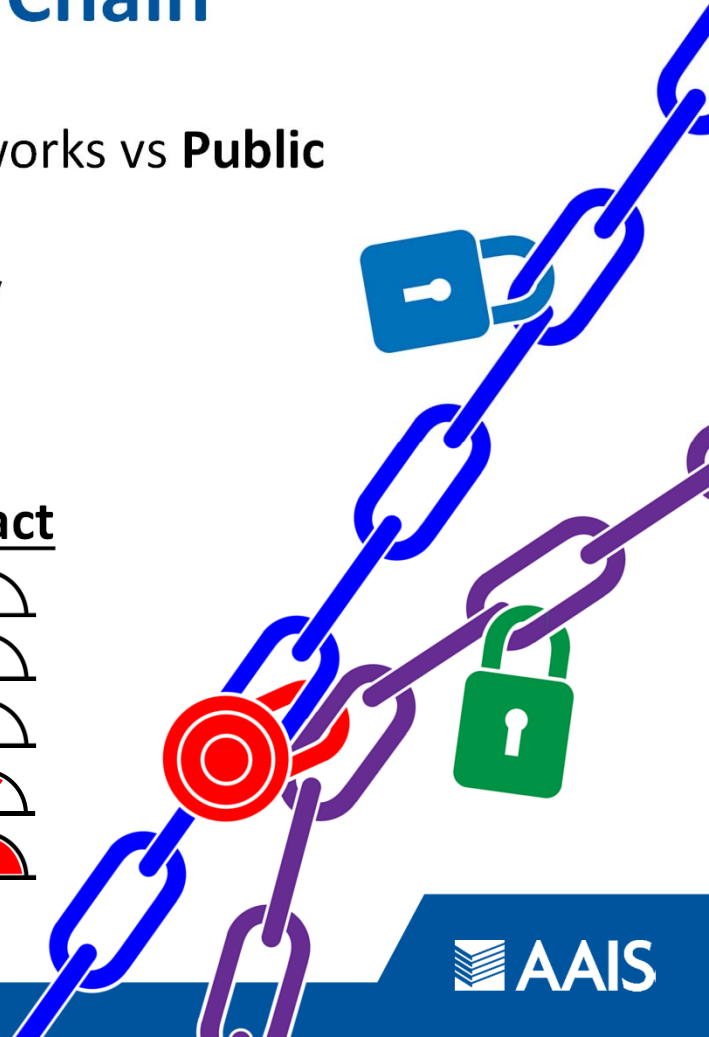
Business Model Key: TRUST*

- **Defining Protocols** of Value Exchange
  - Participating Organizations
  - Value Proposition(s): Clear *WHY*
  - Monetization Strategy
- **Governance**: Who Do You Trust?
  - Make & Change Rules
  - Transparency and Accountability
  - Trust is Earned: History of Success
- Industry **Adoption** Realities
  - Don't Trust Each Other
  - Don't Trust Blockchain (very far*)
    - Must define just *how* far

Regulators

Policy Holders

Insurers

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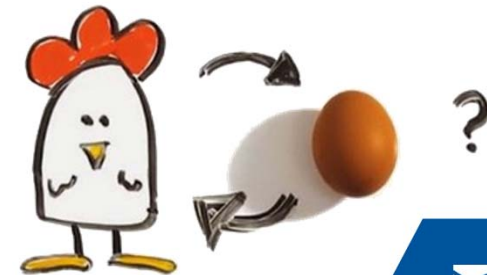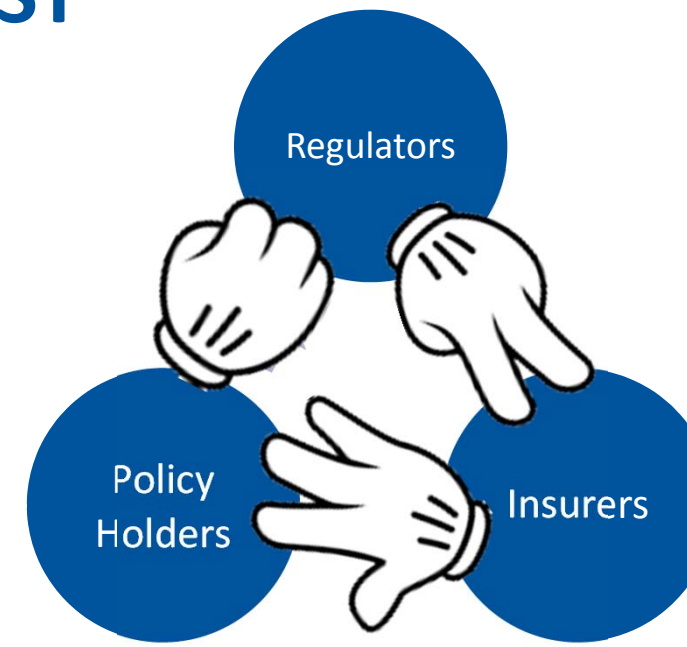
Network into Community = Impact!

Blockchain Will Significantly Impact Insurance when Trust in the Technology and it's Governance evolves to turn Networks and Products into Communities of Value.

- Connected Organizations
- Aligned by Common Purpose
- Through Platforms with Rules, Governance, Transparency
- Into Sustainable Communities of Equitable Value

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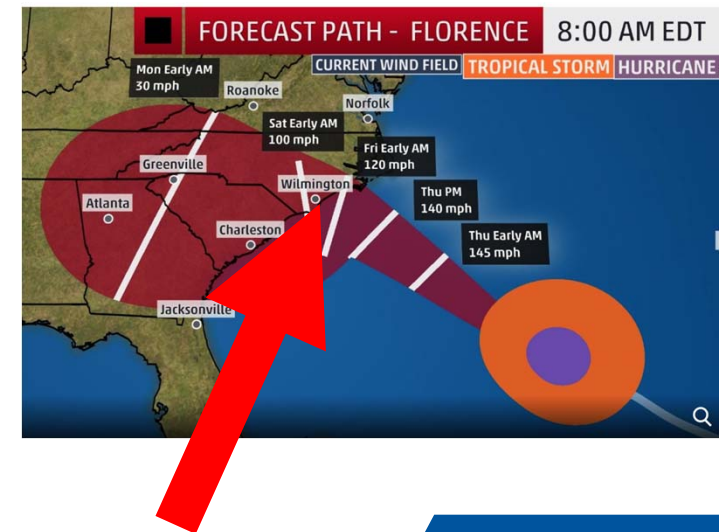
Let's Link it up...

- Still early, Evolving rapidly.
- The promise and basics of Blockchain
  - Distributed Ledger, "Blockchain"
  - Smart Contracts and Hashing
  - Trust, Governance
- Product and Business Models
  - Company-centric, low impact
  - Community-centric, high impact
- Governance vs Government
- Align Participants to a Purpose:
  Community of Value

*Blockchain Will Significantly Impact if not Transform Insurance when **Trust** in the Technology evolves to turn Networks and Products into **Communities**.*

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Thank you!

Learn more & Keep in the know:
- Visit: http://www.openIDL.com
- Email: openIDL@aaisonline.com

Truman Esmond
VP, Solutions & Partnerships
trumane@aaisonline.com

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