

BEYOND THE HYPE: APPLYING BLOCKCHAIN

Andrew J Hacker, CISSP, ISSAP
CEO, Thought Networks, LLC



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THE WORLD'S FIRST ARTIFICIAL INTELLIGENCE BLOCKCHAIN

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WHAT IS BLOCKCHAIN?

Blockchain is a distributed ledger, or database, shared across a public or private computing network.

The Facts:

Each computer node in the network holds a copy of the ledger, so there is no single point of failure

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Every piece of information is mathematically encrypted and added as a new “block” to the chain of historical records.

...

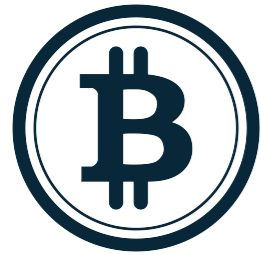
Various consensus protocols are used to validate a new block with other participants before it can be added to the chain.

...

The ledger can also be programmed with “smart contracts,” a set of conditions recorded on the blockchain, so that transactions automatically trigger when the conditions are met.



COMMON MISCONCEPTIONS



Blockchain is Bitcoin



Blockchain is better than traditional databases



Blockchain is immutable or tamper-proof



Blockchain is 100% secure



Blockchain is a TRUTH machine

REALITY

Moving past the misconceptions around advantages and limitations of blockchain

Reality:

- Bitcoin is just one application, blockchain can be used for many applications
- There are tradeoffs, often traditional databases can perform better. Makes it perfect for low trust environments
- Data is append only, data can't be removed. A rewrite is impractical 50% attack.
- Uses cryptography to protect data. System security depends on adjacent applications
- Can verify all transactions and data contained in system. Can not verify off-chain transactions.

SIX DISTINCT CATEGORIZES

- Static Registry
- Identity
- Smart Contracts
- Dynamic Registry
- Payments
- Other

STATIC REGISTRY

Distributed database for storing registry

Some use case examples:

- Land title registration
- Food safety and origin
- Patent/Intellectual Property

Identity

Distributed database with identity-related information

Particular case of static registry treated as a separate group of use cases due to extensive set of identity-specific use cases

- Identity fraud
- Civil-registry and identity records
- Voting

SMART CONTRACTS

Set of conditions recorded on a blockchain triggered automated, self-executing actions when these predefined conditions are met

- Insurance claim payout
- Cash & Equity Trading
- New-music release

DYNAMIC REGISTRY - TOKENIZATION OF EVERYTHING

Dynamic distributed database that updates as assets are exchanged on the digital platform

- Fractional investing
- Drug supply chain
- Manufacturing supply chain
- Shipping

PAYMENTS INFRASTRUCTURE

Dynamic distributed database that updates as cash or cryptocurrency payments are made among participants.

- Cross-border peer-to-peer payments
- Insurance claim

OTHER - NEW BUSINESS MODELS

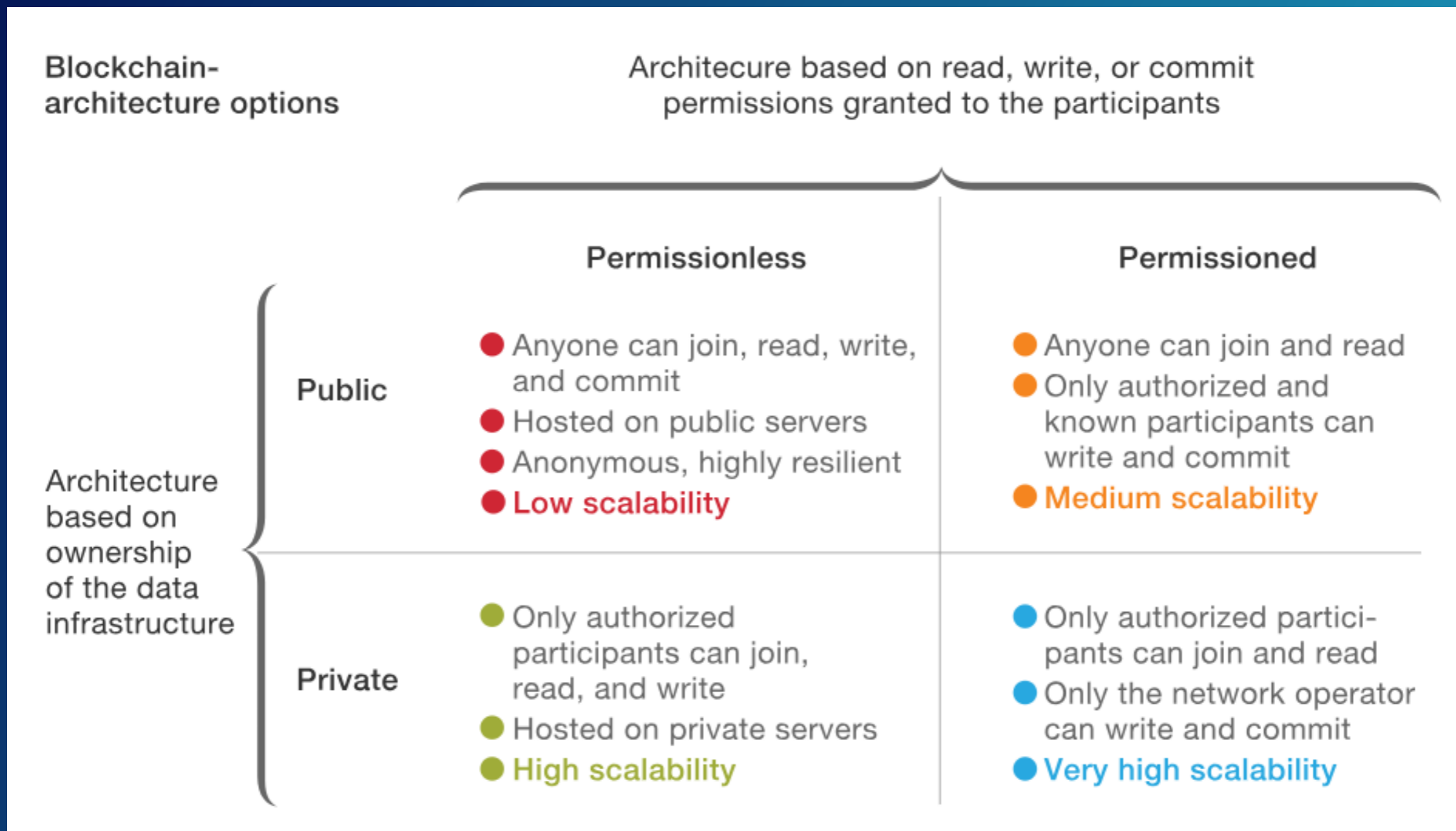
Use case composed of several of the previous groups.

Standalone use case not fitting any of the previous categories

- Project Financing - Initial coin offering
- Blockchain as a service
- Crypto Kitties

STRATEGIC VALUE TO YOUR COMPANY

Most commercial blockchains will use private permissioned architecture to optimize network openness and scalability



INTELLIGENT AI BLOCKCHAIN SOLUTION

Extracts business value automatically

- ▶ Smart data exploits patterns and connections spontaneously

Improves response time

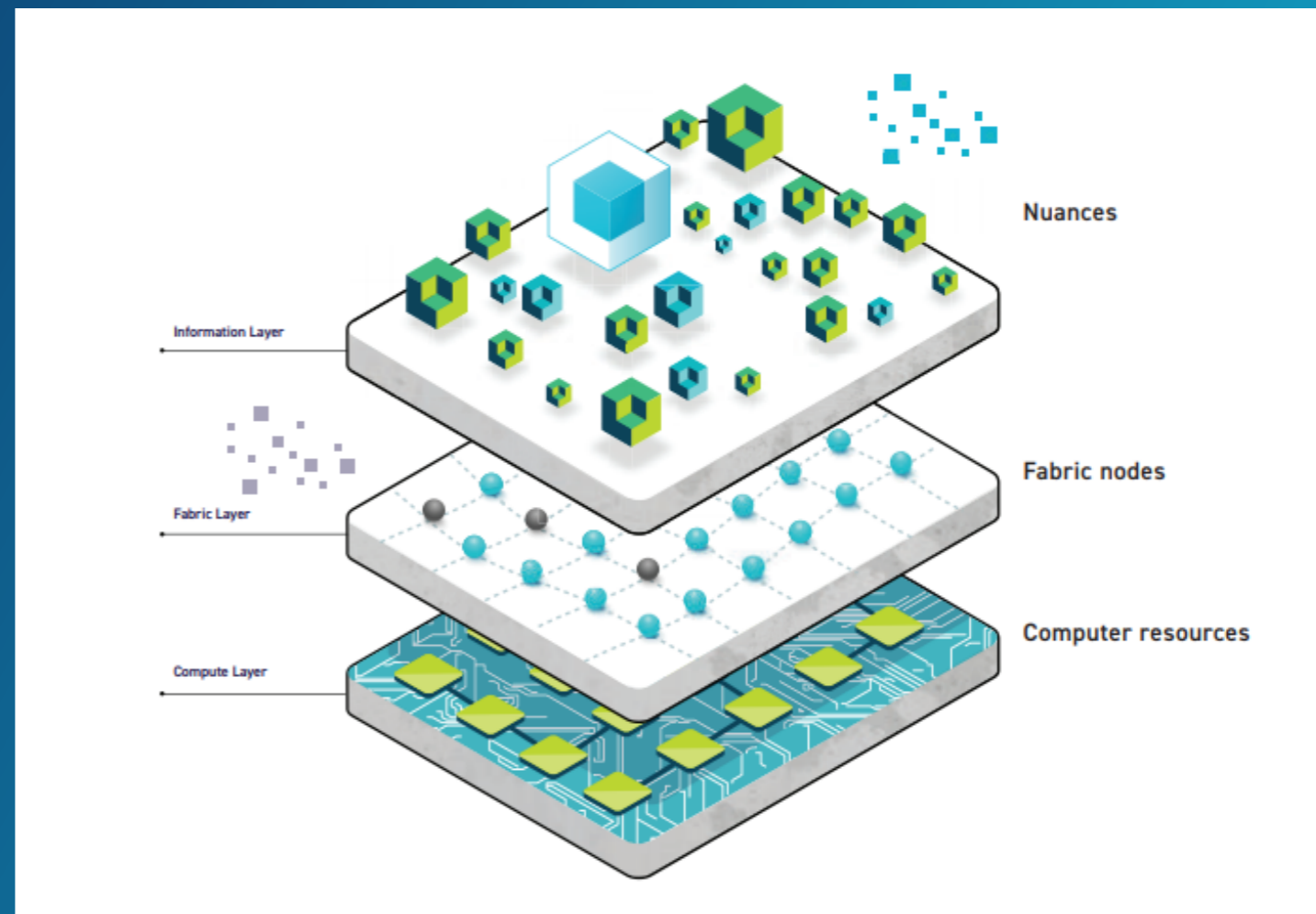
- ▶ Smart data immediately knows what to make happen next

Creates infrastructure for artificial intelligence

- ▶ Smart data operates like **neurons** in brain

Unified Data Exchange (UDx)

- ▶ Manage the value of data directly, data lineage



Patented **Smart Data** operates on **Global AI Blockchain Network**

Use blockchain to distribute specialized processing nodes

- ▶ Nodes are embedded in devices and sensors

Create smart data action, analytics and AI templates

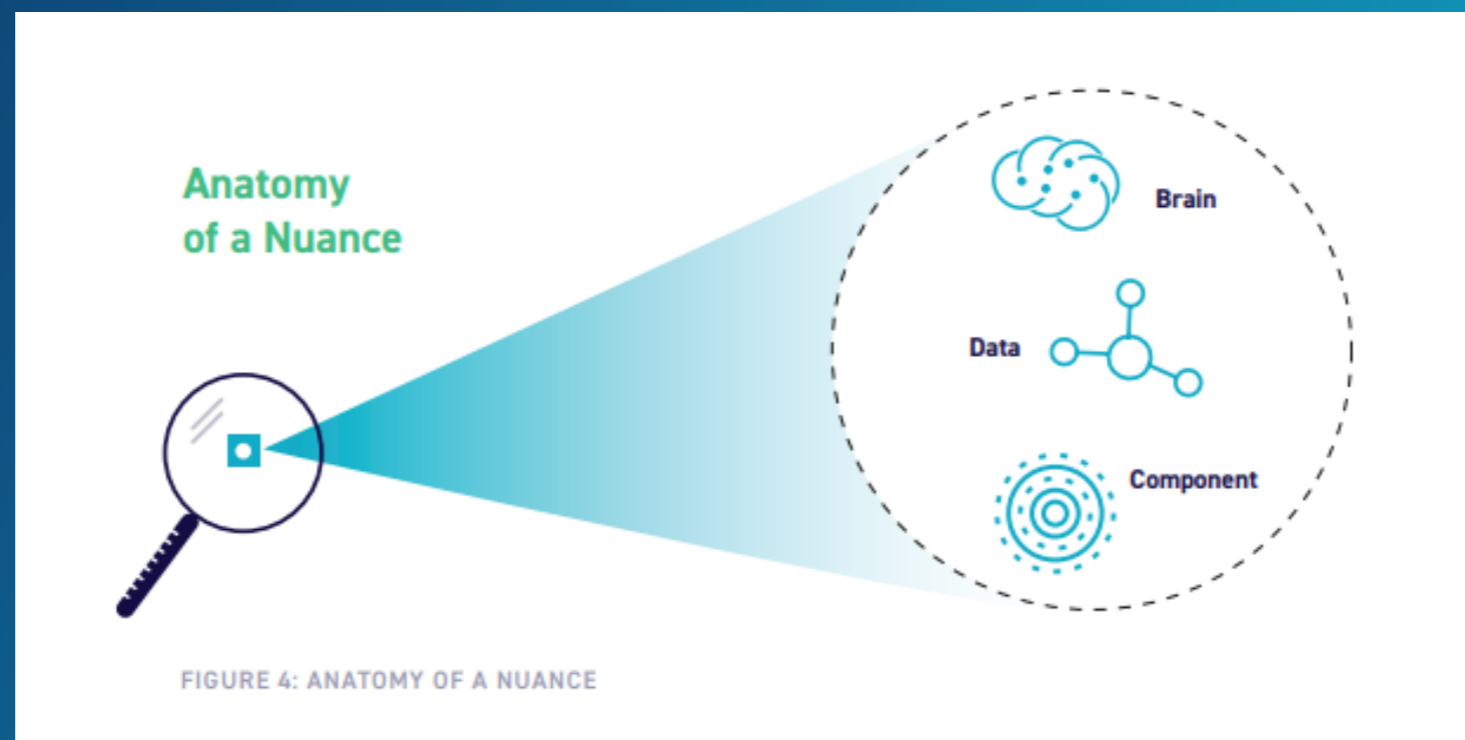
- ▶ Data models and algorithms are created by templates

Use token to assign value to data and action

- ▶ Manage the value of data directly, data lineage and evolution

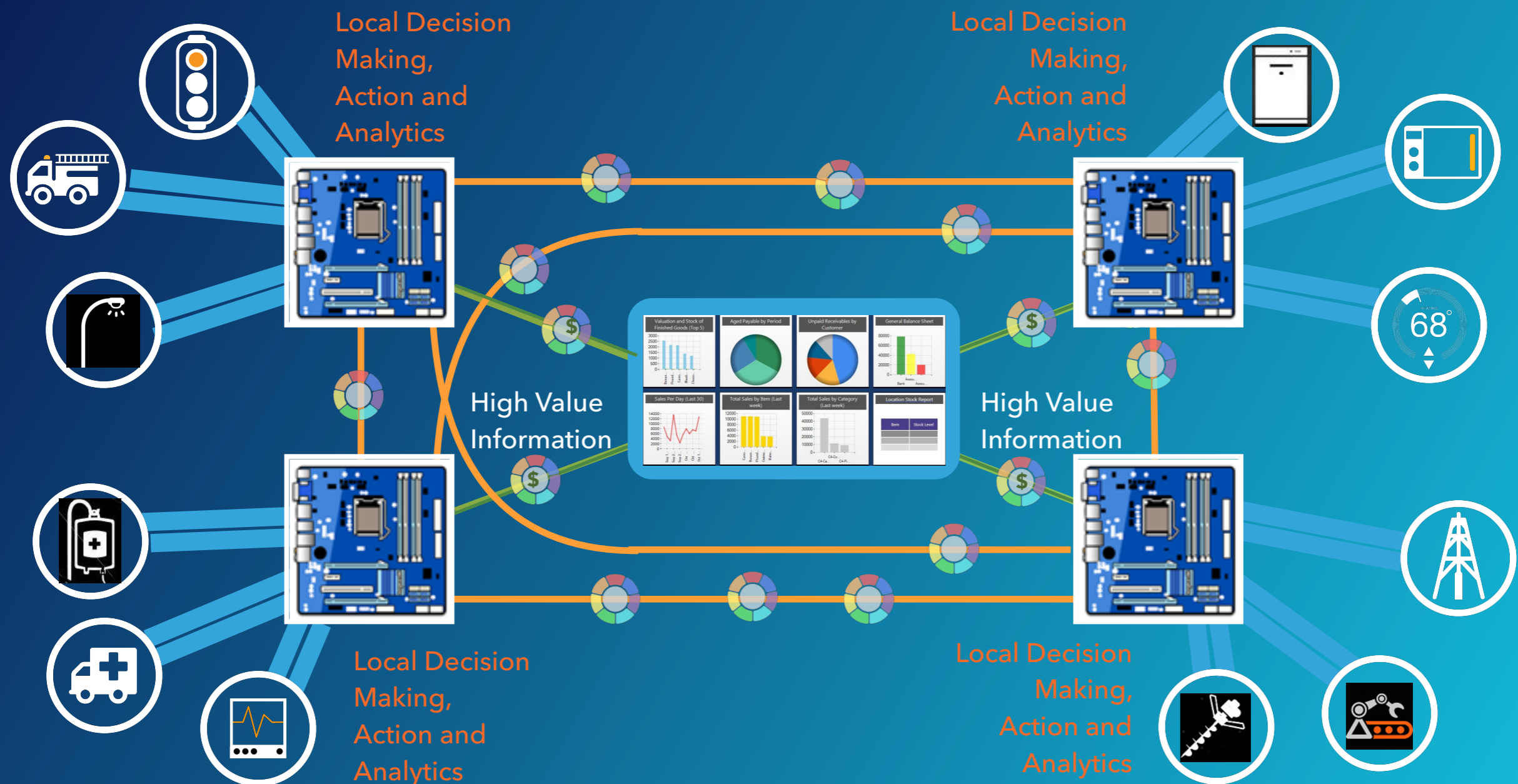
Improve performance of ledger using hierarchical structure

- ▶ Require microsecond processing for real-time transactions



ACTIVE DATA TRANSFORMATION FABRIC SOLVES MULTIPLE V2X ISSUES

- ▶ Intelligent data creates valuable information before overwhelming databases
- ▶ Real-time decisions implemented by smart data with **dynamic security**



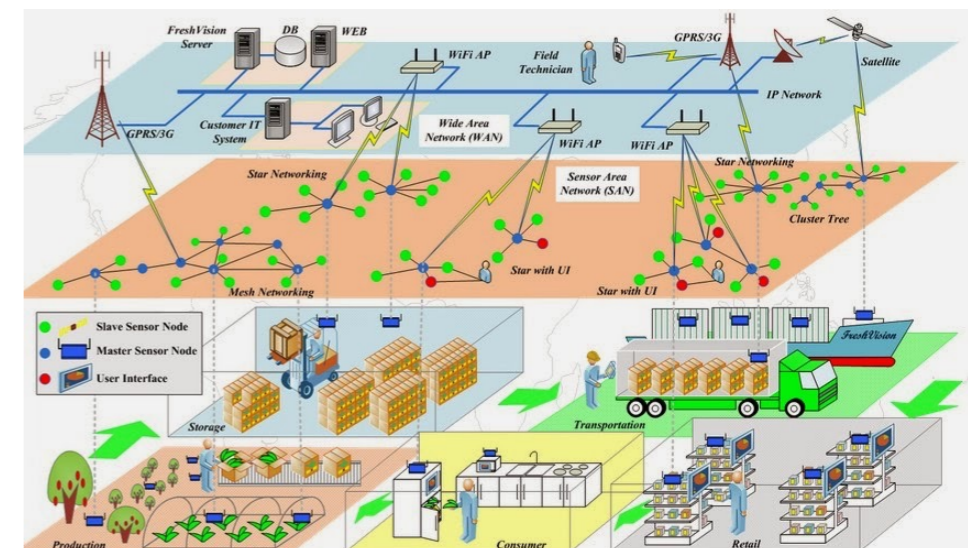
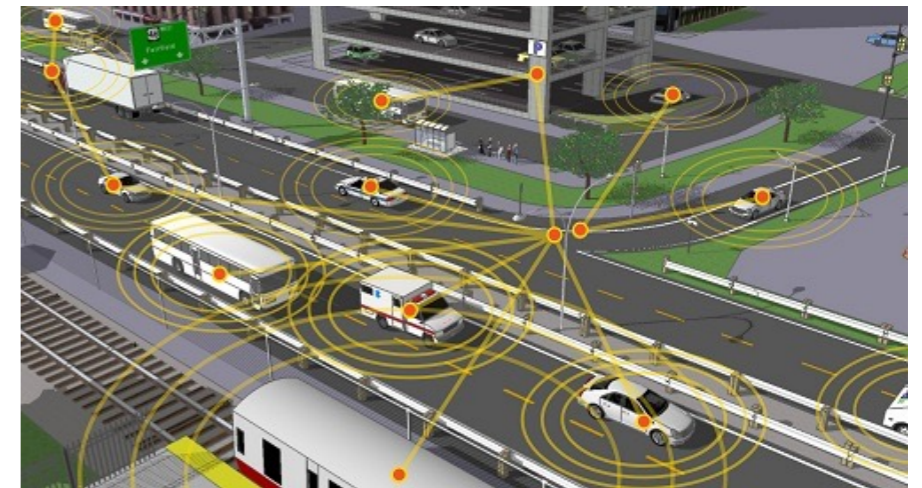
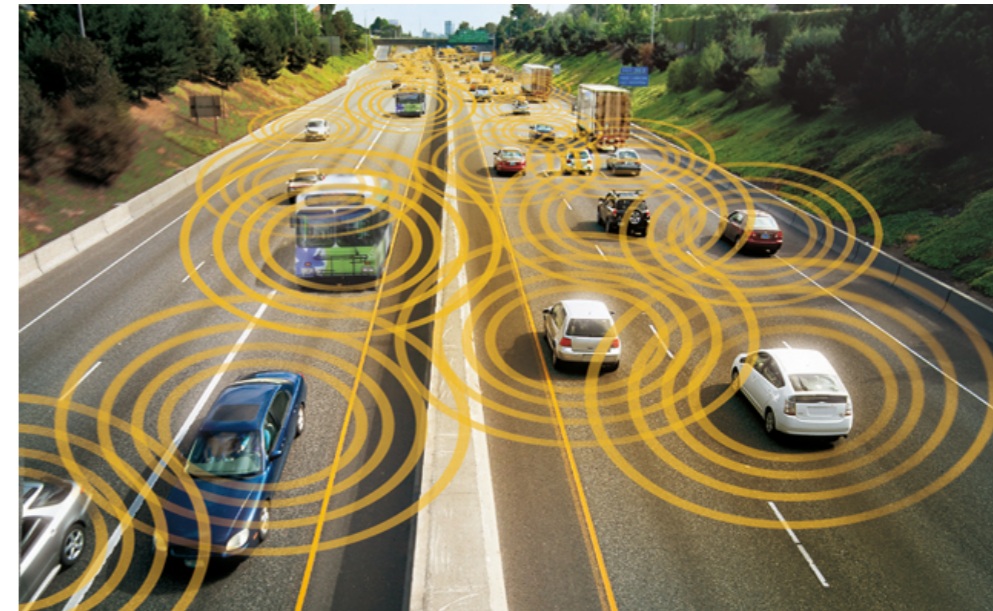
CHALLENGES/BENEFITS

CHALLENGES

- ▶ Meeting security mandates
- ▶ Communicating with Amber Alert Emergency Response systems
- ▶ Reducing the number of incident responses on roads
- ▶ Timely clearing accidents to reduce more dangerous secondary accidents
- ▶ Compliance with air pollution regulations

BENEFITS

- ▶ Reduced infrastructure costs and improved resource use
- ▶ Improved operational efficiencies
- ▶ Enhanced security and safety
- ▶ Greater collaboration between emergency and transit operators and agencies
- ▶ New revenue opportunities for innovative roadside services



RESOURCES

<https://www.sans.org/summit-archives/file/summit-archive-1493690321.pdf>

<http://www.adaptive-ip.eu/files/adaptive/content/downloads/moods/Deliverables%20&%20papers/3OnnHaran.pdf>

<https://movimentogroup.com/blog/v2x-solutions-autonomous-vehicle-5g-ieee-802-11p/>

<http://illmatics.com/Remote%20Car%20Hacking.pdf>

Thank you!

Questions?

andrew@thought.live