
Using Blockchain for Identity Management

By Christopher Henkenius, CEO H4 Technology

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About the Speaker

- ❖ Christopher (Chris) Henkenius, MBA, PMP
- ❖ Founder & CEO of H4 Technology
- ❖ Career HIT SME
 - ❖ Claims, HIPAA, Regulatory, Quality, HIE, Analytics, Machine Learning...
- ❖ Insert Holiday Inn Express Joke Here

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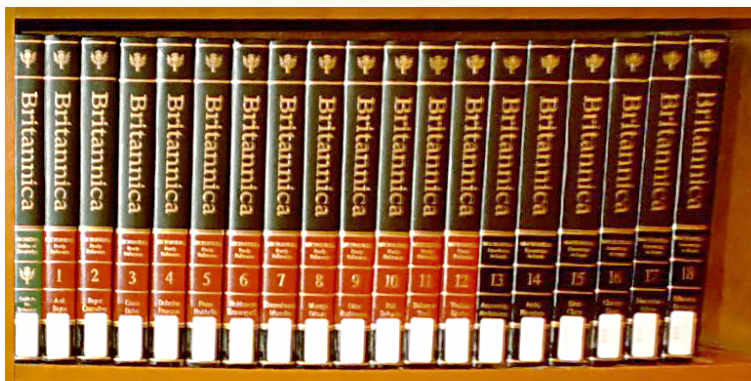


Agenda

- ❖ Introductions & Agenda
- ❖ What is Blockchain?
- ❖ Healthcare Use Cases
- ❖ Blockchain for Identity Management
- ❖ Discussion & Questions



Encyclopedia Britannica



Password Management

The LastPass logo is displayed within a black rectangular border. The word "Last" is in black, "Pass" is in red, and it is followed by three red dots and a red vertical bar.

Bitcoin

The Bitcoin logo, consisting of an orange circle with a white 'B' and two vertical lines, followed by the word "bitcoin" in a bold, italicized, lowercase sans-serif font.

What Is Blockchain?

- ❖ It's a Chain of Blocks?
- ❖ Any questions?
- ❖ Enjoy the conference!



Blockchain Origins

- ❖ Adopted by Satoshi Nakamoto in 2008 for Bitcoin
 - ❖ Origins date back to 1991
- ❖ Eliminated the Trusted Authority (i.e. Banks)
- ❖ Greatly Improved Transaction Times
- ❖ Greatly Improved Confidentiality and Security
- ❖ Created Whole New Industries
 - ❖ "Miners"
 - ❖ "Exchanges"



What Is a Block?

- ❖ Contents

- ❖ Hash of Previous Block
- ❖ A Time Stamp
- ❖ Data

- ❖ Features

- ❖ Cannot be Changed without Consensus
- ❖ Cannot be Changed without Changing all Subsequent Blocks



What Is a Blockchain?

- ❖ Ledger of Transactions

- ❖ Shared Among Peers

- ❖ Starts with a Genesis Block

- ❖ Types

- ❖ Public (Permissionless)
- ❖ Private (Permissioned)



Current Use Cases

- ❖ Cryptocurrency
- ❖ Identity Management



Healthcare Use Cases

- ❖ Consent
- ❖ Health Information Exchange
- ❖ Master Patient Index/Access
- ❖ Drug Providence
- ❖ Prior Authorization
- ❖ Provider Directory



Benefits of Blockchain

- ❖ Transparency
- ❖ Authentication
- ❖ Auditing
- ❖ Security
- ❖ Overhead
- ❖ Middlemen
- ❖ Cost



Blockchain Negatives

- ❖ Do we have a Problem Here?
- ❖ Are we Feeding Mayo to the Tuna?
- ❖ Complexity
- ❖ Infancy
- ❖ Different Middleman



What You Will Need

- ❖ Broker Service
- ❖ Patience
- ❖ Programming Staff
- ❖ Patience
- ❖ Use Cases



Identity Management

- ❖ Password Management Example
- ❖ Patients Control Own Identity
- ❖ Transactional/Register Approach
- ❖ Integration Requirements



Current Healthcare Solutions

- ❖ Enterprise Master Patient Index
- ❖ Personal Health Record Technology
- ❖ Distributed Information
 - ❖ Multiple Patient Records



New Norms

- ❖ People will Control Their Personal Information
- ❖ Can People Control Their PII?
- ❖ Facility Implementation
- ❖ Macro-Implementation

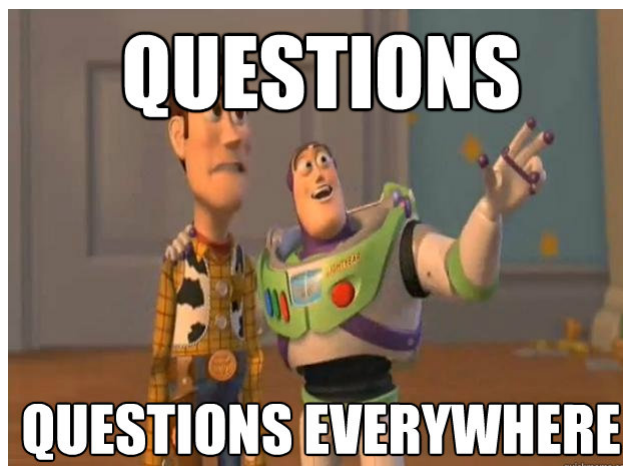


Can it Be Done?

- ❖ Complexity?
- ❖ Cost?
- ❖ Scalability?
- ❖ Does it Fix a Problem?



Questions/Discussion?



Questions – Chris Henkenius

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