

# Technology Implications of Internet of Payments

Live Webcast

October 14, 2020

10:00 am PT

# Today's Presenters



**Jim Fister**  
**Principal**  
**The Decision Place**



**Glyn Bowden**  
**CTO, AI & Data Practice**  
**HPE**



**Richard George**  
**CEO**  
**HLPS**

# SNIA Legal Notice

- The material contained in this presentation is copyrighted by the SNIA unless otherwise noted.
- Member companies and individual members may use this material in presentations and literature under the following conditions:
  - Any slide or slides used must be reproduced in their entirety without modification
  - The SNIA must be acknowledged as the source of any material used in the body of any document containing material from these presentations.
- This presentation is a project of the SNIA.
- Neither the author nor the presenter is an attorney and nothing in this presentation is intended to be, or should be construed as legal advice or an opinion of counsel. If you need legal advice or a legal opinion please contact your attorney.
- The information presented herein represents the author's personal opinion and current understanding of the relevant issues involved. The author, the presenter, and the SNIA do not assume any responsibility or liability for damages arising out of any reliance on or use of this information.

NO WARRANTIES, EXPRESS OR IMPLIED. USE AT YOUR OWN RISK.

# SNIA-At-A-Glance



**185**

industry leading  
organizations



**2,000**

active contributing  
members



**50,000**

IT end users & storage  
pros worldwide



# What We Do



**Educate** vendors and users on cloud storage, data services and orchestration



**Support & promote** business models and architectures: OpenStack, Software Defined Storage, Kubernetes, Object Storage



**Understand** Hyperscaler requirements  
Incorporate them into standards and programs



**Collaborate** with other industry associations

# Agenda

- The Digitization of Value
- Digital assets
- Payments anywhere
- Exchanging currency for digital value
- Zero Trust Transactions and Secure Wallets
- The enabling technology stack
- What's next?

# The Digitization of Value

Converting IRL assets to digital value

# About HLPS



**Company Health Life Prosperity Shared Ltd (HLPS)**

**[www.hlps.me](http://www.hlps.me)**

- HLPS is a UK based fintech company which specializes in developing use cases to solve societal problems. HLPS digital asset solutions introduce liquidity, mobility and efficiency into sectors where value is locked up in real world assets and processes are cumbersome and complex. Our DASICHAIN digital value exchange technology will revolutionize the way citizens engage with governments and consumers with business in the Web 3.0+ World.



# First Principles: Great Ideas Often Solve No Problem



v



The problem is process inefficiency - disrupt it!

# And Always Consider an Idea...



# How Can a Physical Object Have a Digital Value?



Value is defined by an item's scarcity (supply v demand) but we have come a long way from haggling in the market over chickens or responding to TV ads at fixed prices. Intermediaries often personalize offers; nothing is at it seems



Banks have been virtualizing wealth for 100s of years – e.g. In days of reserve asset ratios and like pre 2008 creating often unsustainable debt and instruments of doom such as CDOs (now back in a different name). The masses are enslaved by debt (and many countries too) and we all work to satisfy it.



Virtual wealth can be represented by a mutually agreed token



Bank notes are not currency, they are contracts or IOUs – “I promise to pay the bearer on demand the sum of...” £x is printed on every British note. NB it is a contract!



So let's look at digitizing both the value AND the contract! Let's call it a smart contract and let's make it self- executing with rules enshrined in code

# Unlocking Real World Assets – Making Liquid the Illiquid!

- Transactions are traditionally cumbersome
- Libra? And digitizing currencies?
- Financial inclusion is on its way
- Digital assets can be associated with real world assets
  - Anything that has value can be digitized and that value exchanged
- Fractions and utilization determined by smart contracts & transactions



# Digital Assets

Born in the digital environment, but have a value?



# The Future of Digital Value and Stages of Value Shift

- PHASE 1: 2017 Early stages of testing
  - STOs linked to real estate and some disasters.
- However, like pre Dot Com crash some great work on foundations
  - investment (gold rush) but lots of cool ideas but little traffic/solution adoption
- Backlash from regulators followed
- Too early



# Phase 2: Digital Assets in Hybrid Solutions

Hybrid: early 17th century (as a noun): from Latin *hybrida* 'offspring of a tame sow and wild boar'

- Digital assets within solution transactions that relate to local currency value
  - Not necessarily exchanged externally to third parties
- Disruptors will start being disrupted.
  - Digital currency launches from central banks and perhaps Libra will start securing adoption



# Stage 3: Breaking Out – The Value Shift Accelerates

- Digital assets are freely traded through digital exchanges and secondary markets
- The SEC/FCA etc regulate them
  - Why not be consumer focused???
- Consumers become introduced to receiving, holding and exchanging digital assets
  - As well as currency for goods and services.



# Stage 4: Mass Adoption and Automation

- Millions of types of assets are traded peer to peer
- Demand is matched to supply at any moment.
- Individuals achieve the best possible value at exactly the moment we need
- Wallets contained in mobile devices
  - Gathering, holding and transacting on our behalf?



# Born in the Digital Environment, How to Define Value?



How can a digital item be made scarce, and so have value?



Limit distribution!



Protect the item with a lock and key!  
(Encryption and certificates)



Restrict the distribution of the key



Depends on identity management



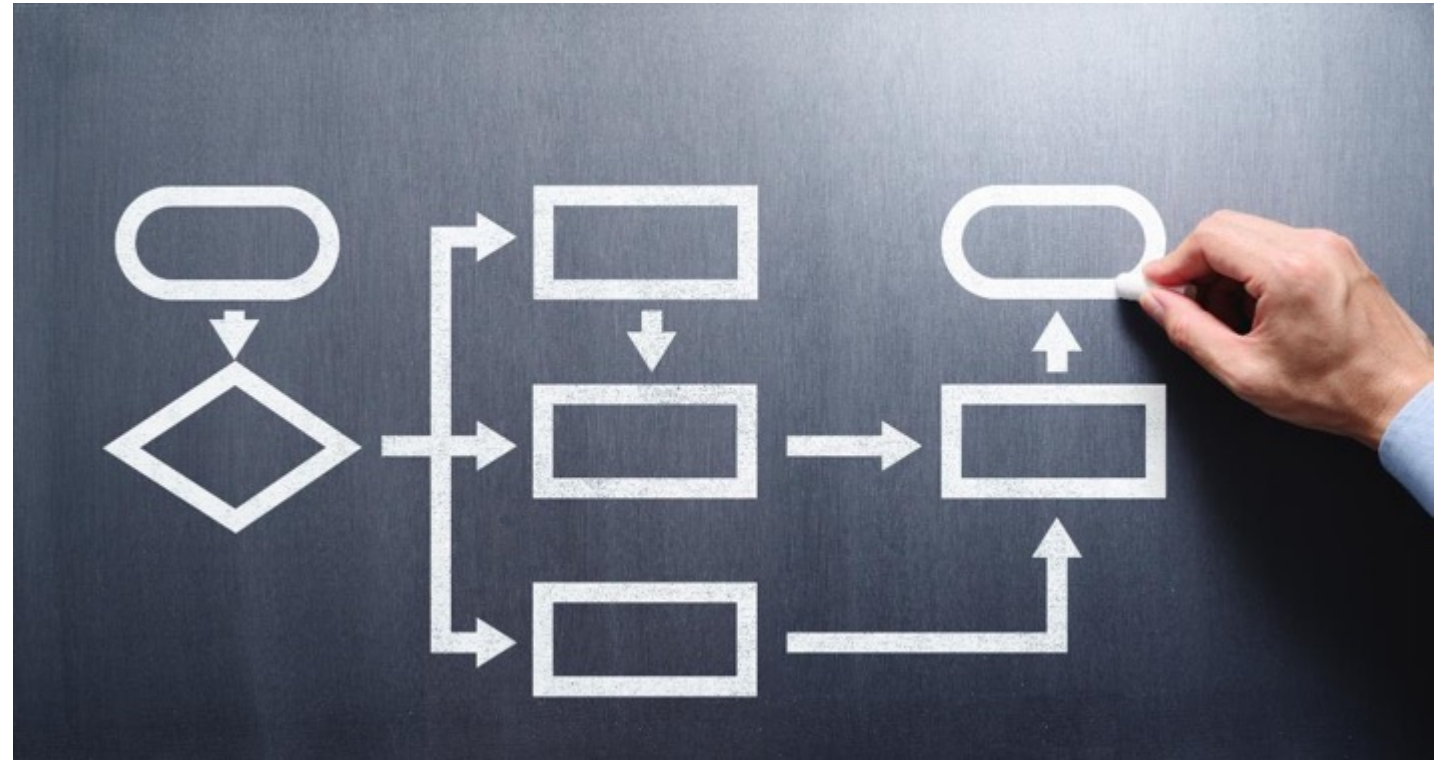
# The Fashion Shoe Principle

- Special edition trainers have proven to be an appreciating asset
- Fractionally digitised and certified with the history of its transactions
- Value can be subdivided by associating non-fungible digital assets that represents it and only it.
- Retains scarcity whilst accelerating liquidity.
- And all nicely wrapped up in rules governed by smart contracts



# Behaviour and the Sharing Economy

- Influencers of all types, organisations, peers, family etc
- AND asset rules
  - Q: Can I exchange my carbon credits for filling my car?
  - A: Yes
  - Condition: If you are charging a Tesla or filling a Honda with Hydrogen
  - A: No
  - Condition: If you are filling up your gas guzzling V8!
- Influencing behaviour and restricting utility by rules means value appreciation



# So What if I Own an Asset and Need to Borrow?

- Hey! Why not borrow from yourself and set your own settlement terms for repayment to recover the digital asset later?
- Inspired by Scott Nelson at Sweetbridge by the concept of self-borrowing as a means to improve cashflows in a supply chain rather than going into expensive bank debt or factoring
- Payment holidays in exchange for asset release backs because I suffered job loss or sickness with a right to recover my assets later

# And What About the Government Services?

- Once digital assets become mainstream, interoperability and regulatory obstacles overcome
- Governments can regulate for purposes of automated taxation on millions of large or micro transactions, executing digitally.
- The benefits to government and local government are enormous in efficiency terms





# Payments Anywhere

Pay with your phone, your watch, your clothes, your body?



# The IoP, IoT and IoMe

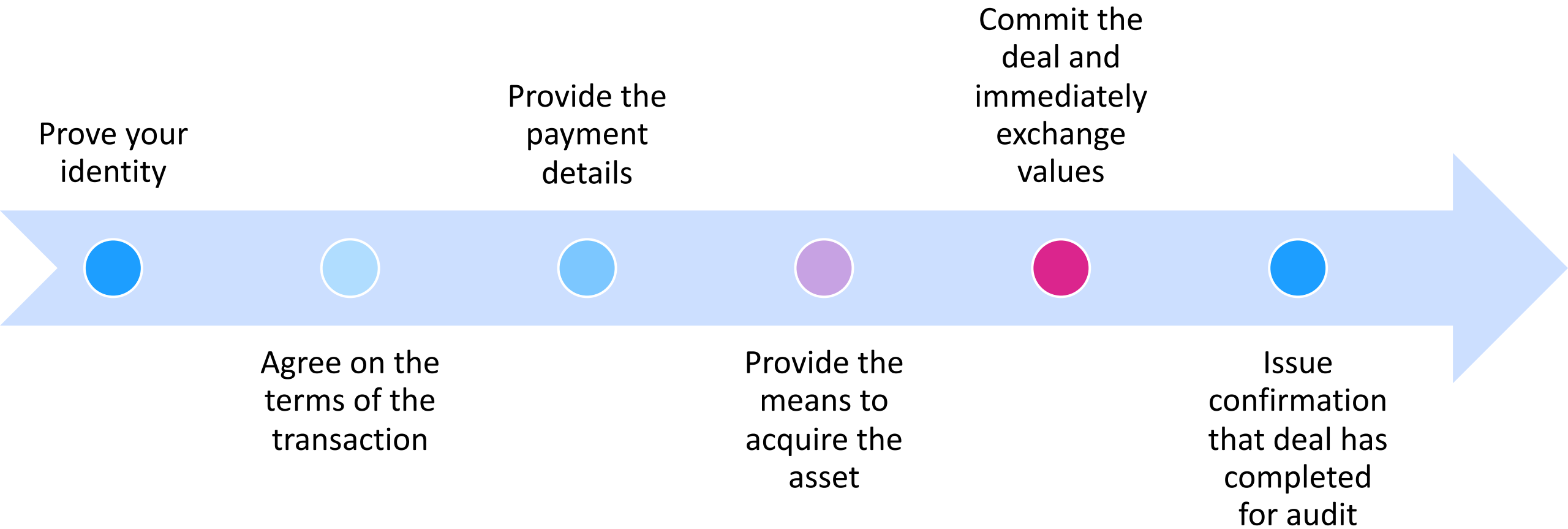
- Receipts and payments of digital assets to and from mobile wallets
- IoT devices could reward or receive and create digital markets
- Securely: Anywhere, anytime
- Physical connectivity?
- Can my body calculate?



# Exchanging Currency for Digital Value

Tokenizing the governments tokens

# Exchanging Currency for Digital Assets / Value



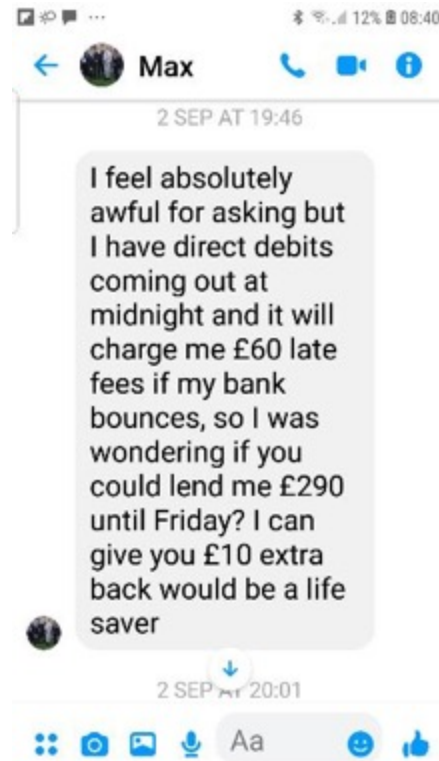
# Zero trust transactions + Secure wallets

You don't trust them, they don't trust you. No problem!

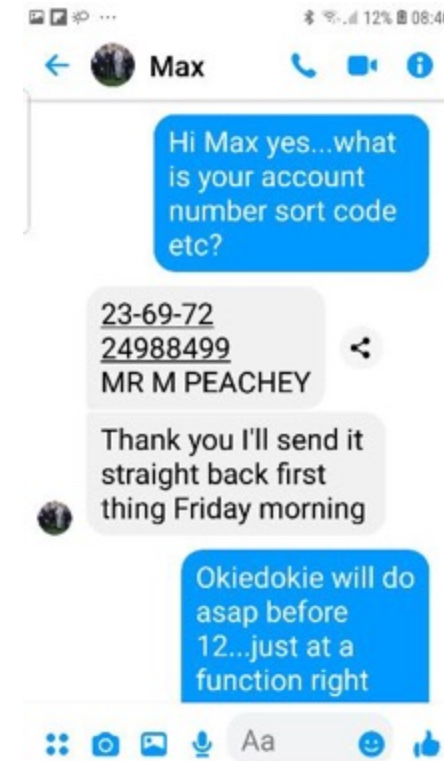
# BUT: Is this AI and Bots in Action?

Can I Trust Intermediaries with My Data and Value Transfer?

## Hi Max



## Hi Criminal

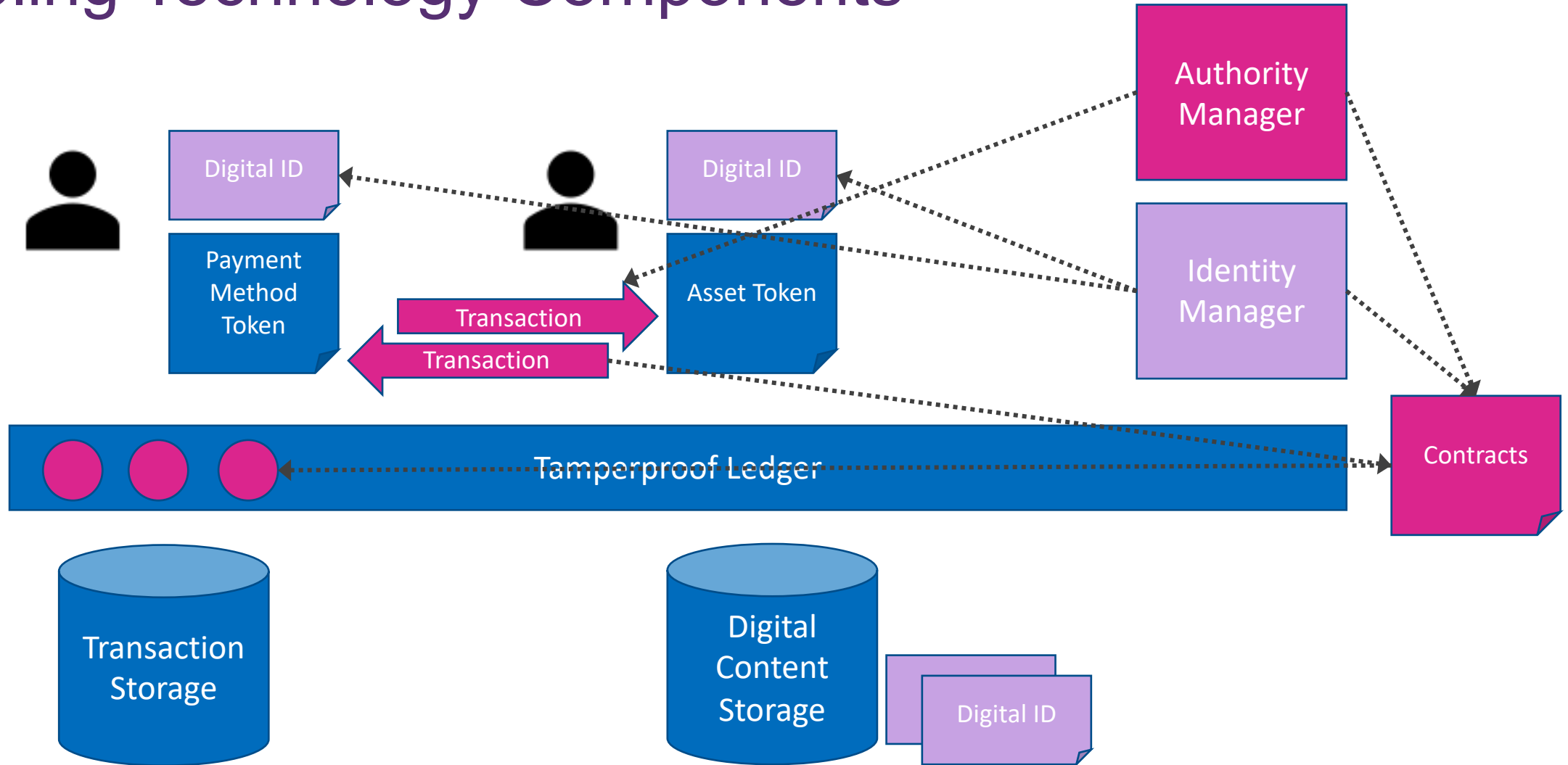




# The Enabling Technology Stack

Blockchain and friends

# Enabling Technology Components



# What's Next?

Move it all online?

# Summary

- Financial transactions are changing
- Personal transactions OWNED by the person making them
- Identity and Ownership need to be digitized
- Peer to Peer and Decentralized is driving the personal revolution
- Data is the new currency everything!
- This is a journey and we are iterating quickly!

# After This Webcast

- Please rate this webcast and provide us with feedback
- This webcast and a copy of the slides will be available at the SNIA Educational Library <https://www.snia.org/educational-library>
- A Q&A from this webcast will be posted to the SNIA Cloud blog: [www.sniacloud.com/](http://www.sniacloud.com/)
- Follow us on Twitter @SNIACloud





# Thank you!

Q & A