



IDENTITY
SPECIAL INTEREST GROUP

Update to the Wallet
Report: Emerging Trust
Layer, Trust Registries,
and Interoperability



Darrell O'Donnell
Continuum Loop | CEO



Thursday, Oct 19



11-12 AM ET

2023 Wallet Report Update

It isn't (and wasn't) about the wallet...



Darrell O'Donnell, President & CEO
Continuum Loop Inc.

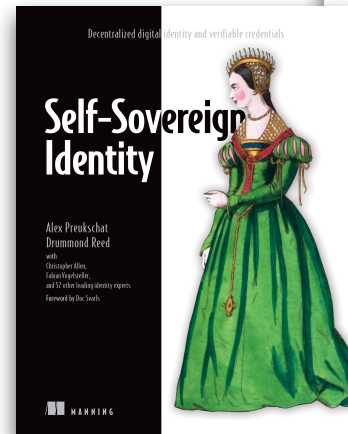




Darrell O'Donnell
President/CEO
Continuum Loop Inc.



We design, build, deploy, and
grow **digital trust ecosystems.**



Chapter 9 - Wallets & Agents

The Current and Future State of Digital Wallets

A guide to help understand where the Digital Wallet market is
and where it is heading. For business and personal use.

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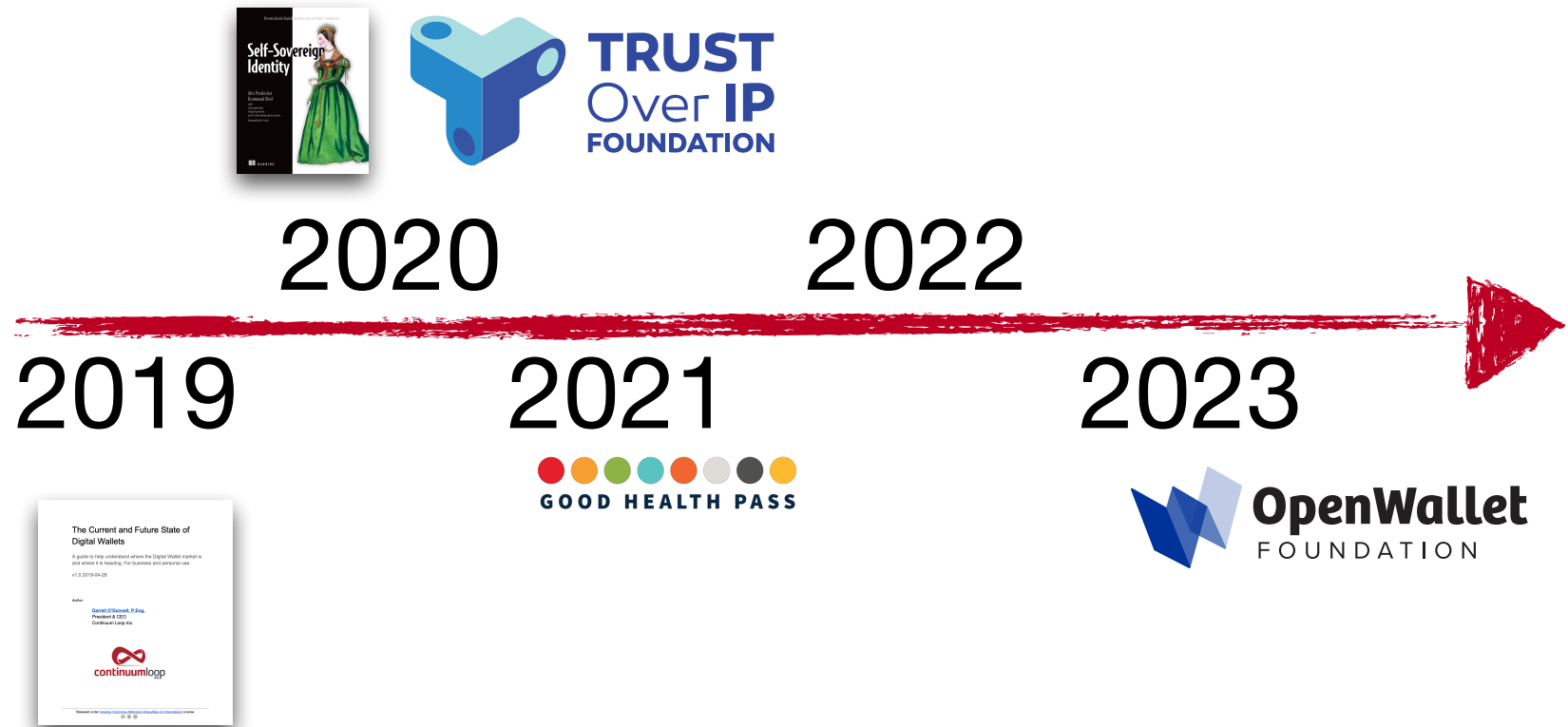


Agenda

- Quick Update on **Wallets & Agents**
- Discuss two related trends:
 - **(Emerging) Trust Layer**
 - **Trust Registries**
- Time permitting:
 - **Interoperability**

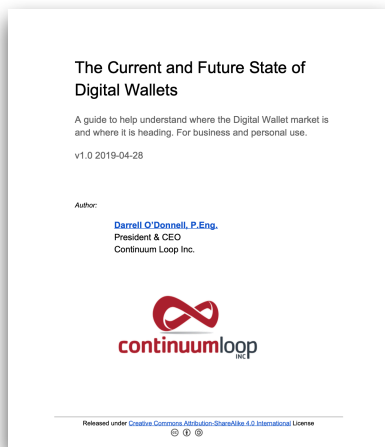


Timeline



What Did **The Wallet Report** Get **Wrong** (and **Right**)?

- **Agents** (**wrong**)
- **Single-Purpose** Wallet Apps (**right**)
- **Cloud/Custodial** Wallets (**wrong/right**)
- **Premature** Interoperability/Standards (**right**)
- **Trust Registries** (**right** & **wrong**)



Agents

Biggest Surprise

- We are NOT seeing a lot of Agent adoption to date.
- Due to naive understanding of “what must be true” for proliferation.

The general idea behind Agents is that they handle things for the Person or Organization that may be useful in many ways. Various different types of Agents will be created in time. Some examples are:

- **Messaging Agent** — Handles messaging for us in various contexts ranging from the simplest credential messaging (accepting, offering, etc.) to full 2-way messaging along the lines of a peer-to-peer version of WhatsApp.
- **Privacy Agent** – Keeps a lock on privacy-invading information being shared unless you want it to be (or need it to be – using a panic button or something) and who you will allow to access it.
- **Delivery Agent** – Handles delivery of packages to you (it may even arrange to put the eggs in your fridge) while maintaining a secure perimeter so your private information doesn't leak.
- **Health Agent** – ensures that you're following the eating approach that you want to, taking time to exercise, and generally checking up on things and staying safe. In the event that something happens to you (e.g. you have fallen and can't get up) it may reach out on your behalf to your loved ones and/or medical authorities.
- **Home Security Agent** – watches your residence and responds to threat and non-threat events for you. If your insurance company needs to know that you are meeting your obligations (e.g. is the alarm actually on when you're away?) perhaps you could share that information for a reduced premium.
- **Data Use Agent** – Sidewalk is building IP that will most likely drive a ton of revenue for Alphabet in the future. What if, as a resident, you could share in some of that revenue? A Data Use Agent would act on your behalf, ensuring you and your city get their fair share of revenue.
- **Buying Agent** – Issue purchases on your behalf to vendors that are part of the ecosystem – this is your trusted fridge ordering your eggs and milk!
- **Marketing Agent** – Blocks or allows marketing information to flow through to you. Not really a city-based approach but a key for local vendors to be aware of so they can know how to reach you, assuming you want that.
- **Reputation Manager** - handles your reputation scores on various different platforms that range from centralized (e.g. Uber, Yelp) to fully-decentralized systems that haven't even been deployed. The key here is that at some point you will own your own reputation data that other can use as input.



(Emerging) Trust Layer

- Headlines any day
 - **Identity** is broken
 - **Trust** is eroding

“the internet lacks
an ID layer”



17OCT2023

THE STRAITS TIMES

Trust in digital space under pressure:
SM Teo Chee Hean



Senior Minister Teo Chee Hean giving his opening address at the Singapore International Cyber Week at the Marina Bay Sands Expo Convention Centre on Oct 16. ST PHOTO: GUY LAW

Lee Li Ying
Correspondent

UPDATED OCT 17 2023, 10:41 AM SGT



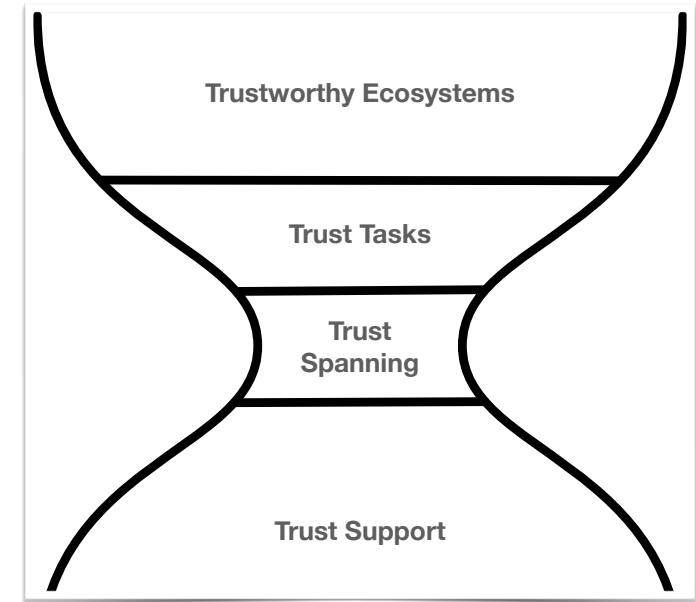
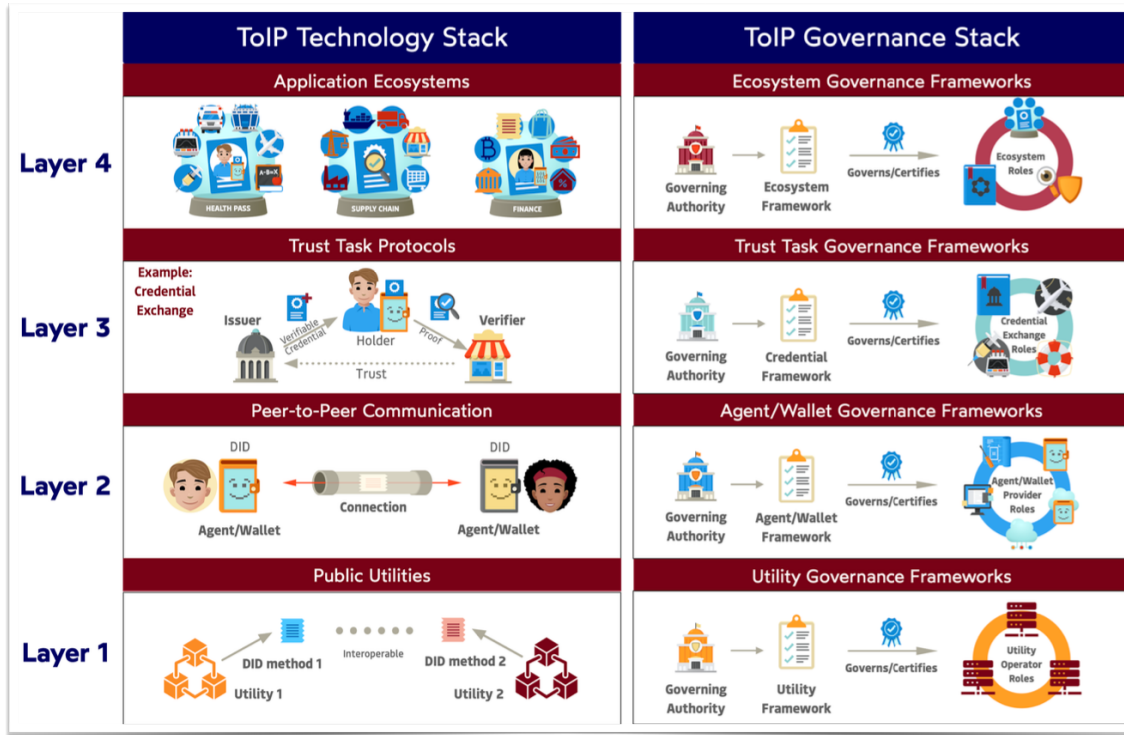
“The internet is missing a trust layer. We’re fixing that.”

- Darrell O'Donnell



Trust Over IP Foundation

Governance + Technology

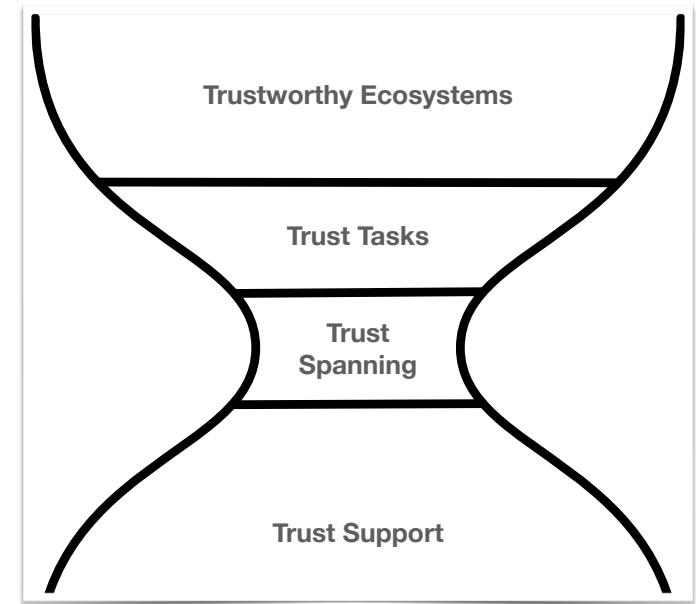


Trust Spanning Protocol

Powering the Trust Layer

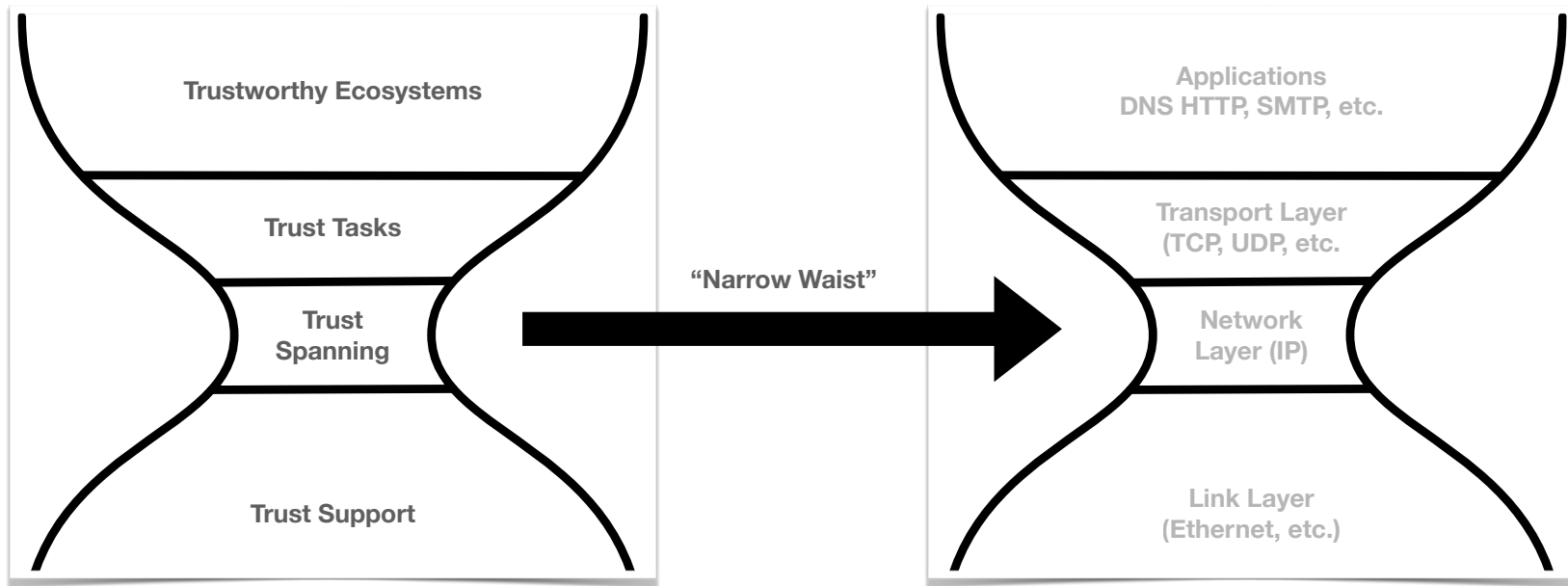


- Enables **Technical Trust**, ensuring that we have:
 - **Confidentiality**
 - **Authenticity**
 - **Privacy**



Hourglass Shape

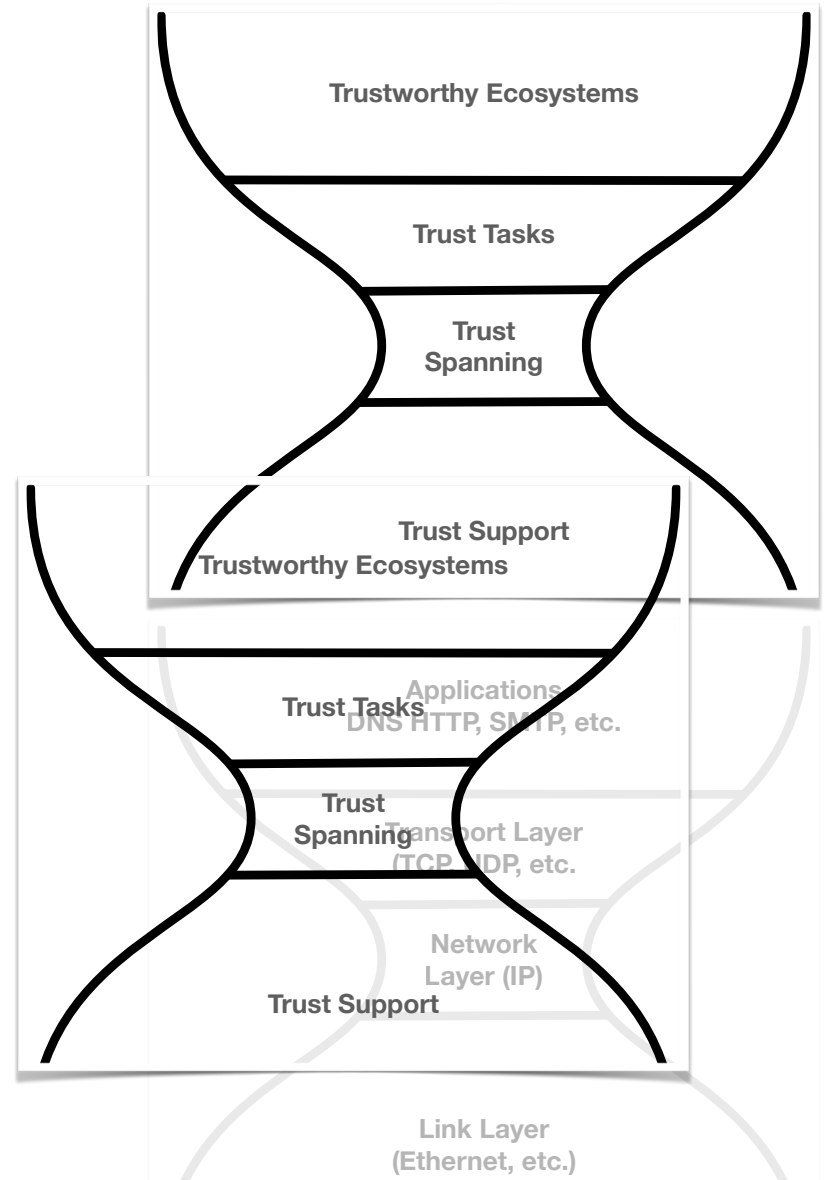
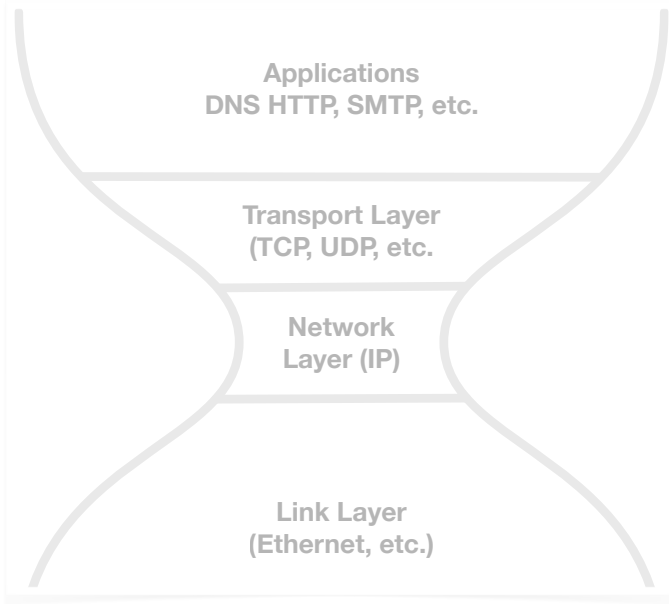
Familiar Pattern



It isn't a replacement...

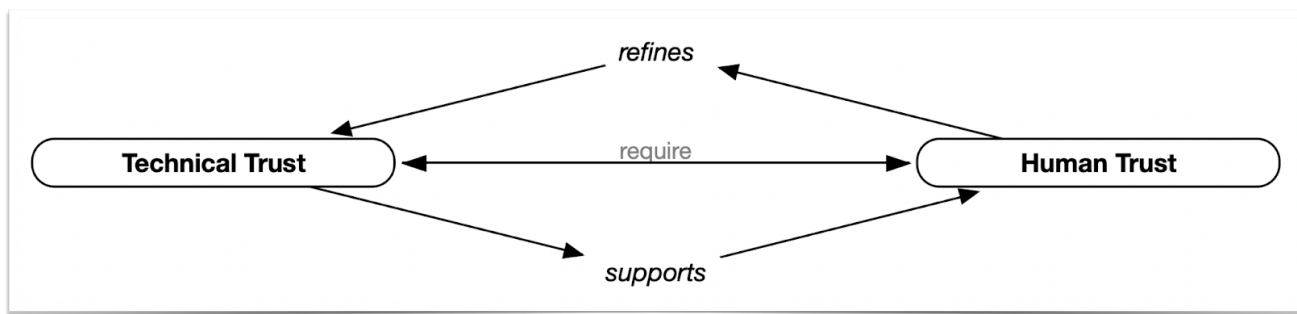
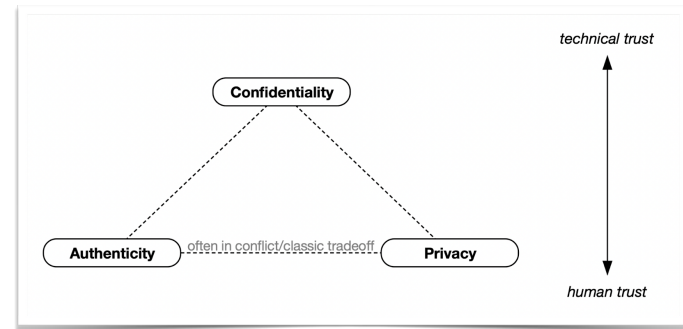
Trust Layers Builds On Top

- Trust **Over** IP



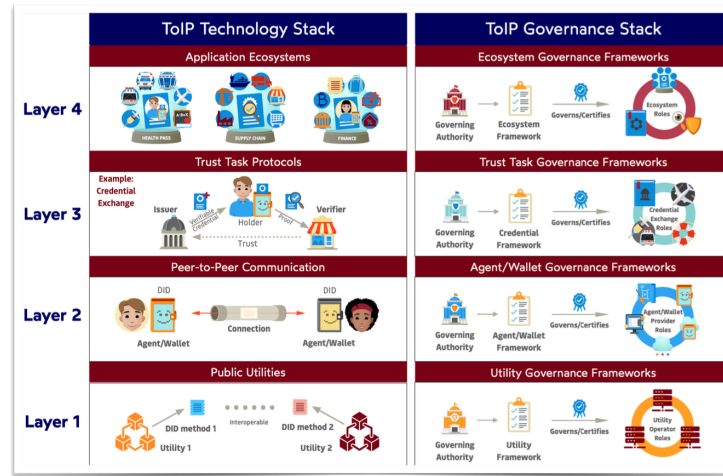
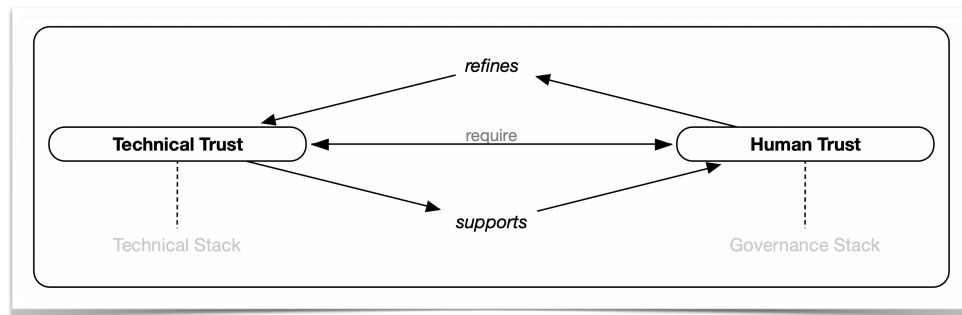
What Does The Trust Layer Do?

- Without **Technical Trust** we **can't** get to high levels of trust
- **Human Trust** builds on, and influences **Technical Trust**
- The two allow **Trustworthy** digital systems to be created



Enabling Deep Governance

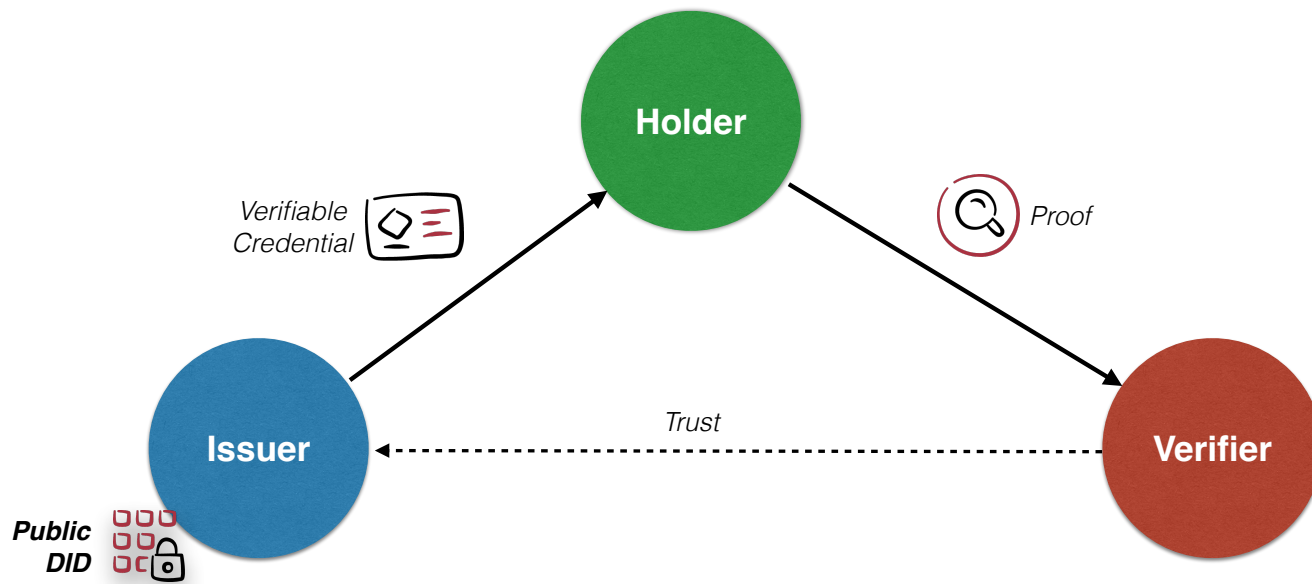
Building With Technical & Human Trust



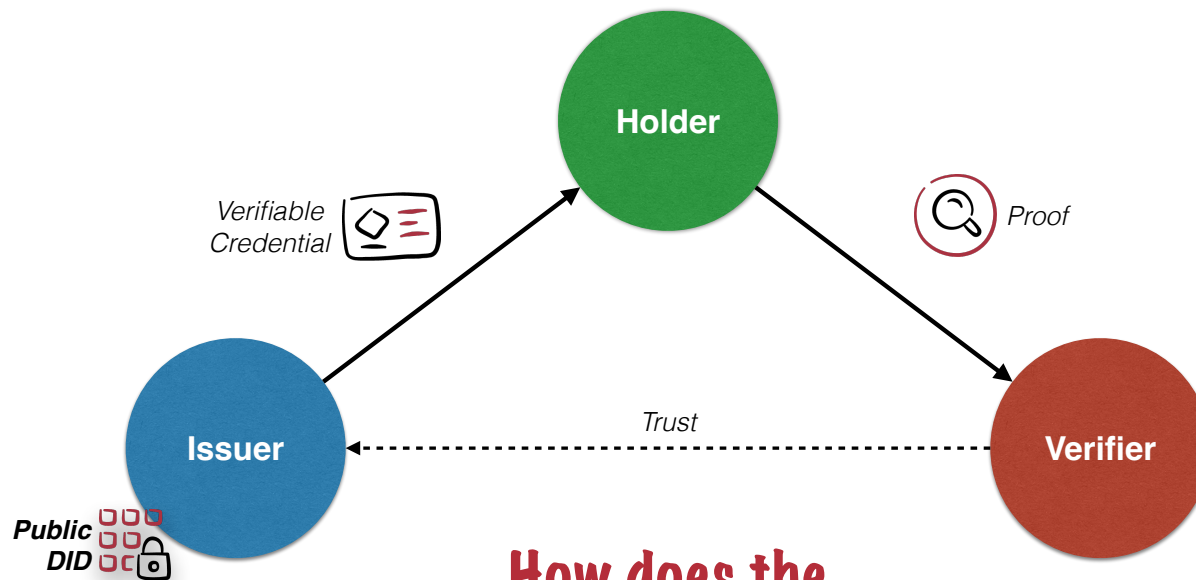
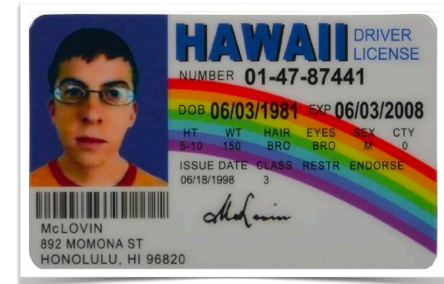
The Trust Layer is Supported By Trust Registries



Trust Triangle



The “Triangle” Isn’t Enough...



How does the Verifier know the Issuer is Authoritative?



One Kind of Credential Driver Licenses

One Flavour - mDL (ISO/IEC 18013-5)

- requires issuer list (no standard way to retrieve)
- Country by Country
 - State by State, Province by Province, Canton by Canton, Prefecture by Prefecture
 - + others
- US (AAMVA Example)
 - URL with timestamp changing link...
- How can anyone keep track?
 - In their own country
 - Internationally



IMPORTANT NOTICE

Please read the Terms and Conditions carefully before accessing or using AAMVA's Digital Trust Service.

[By downloading and using a VICAL, you affirm that you have read and agree to be bound by the](#)

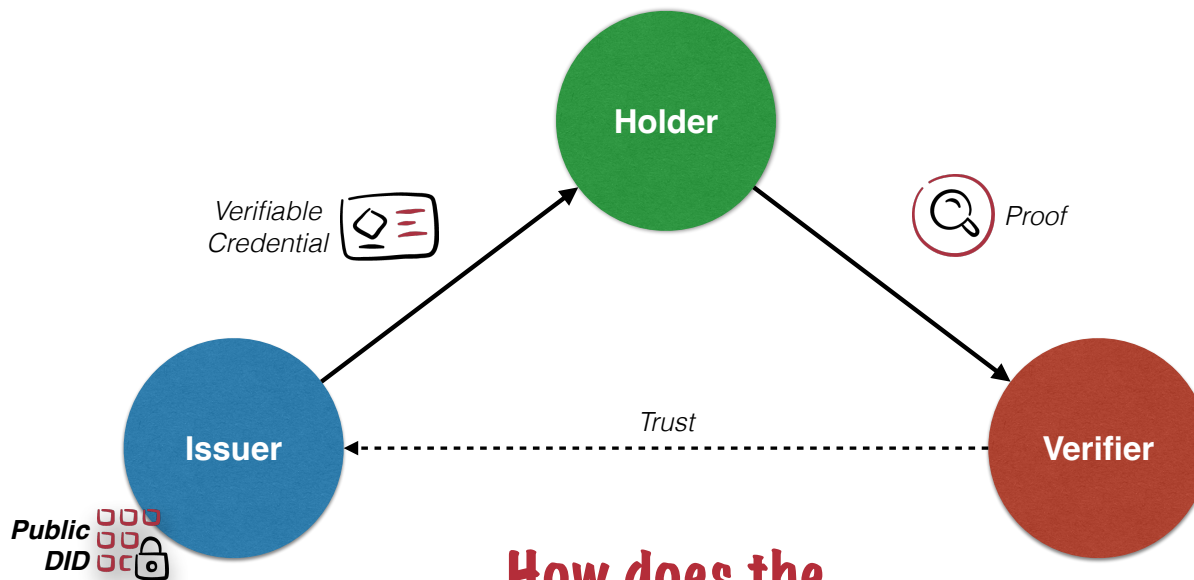
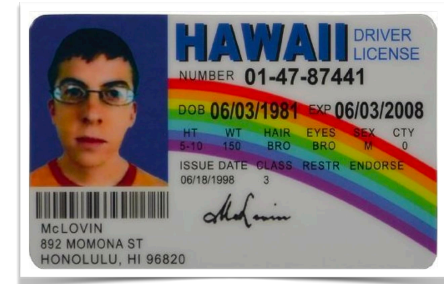
Current VICAL

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name	date	
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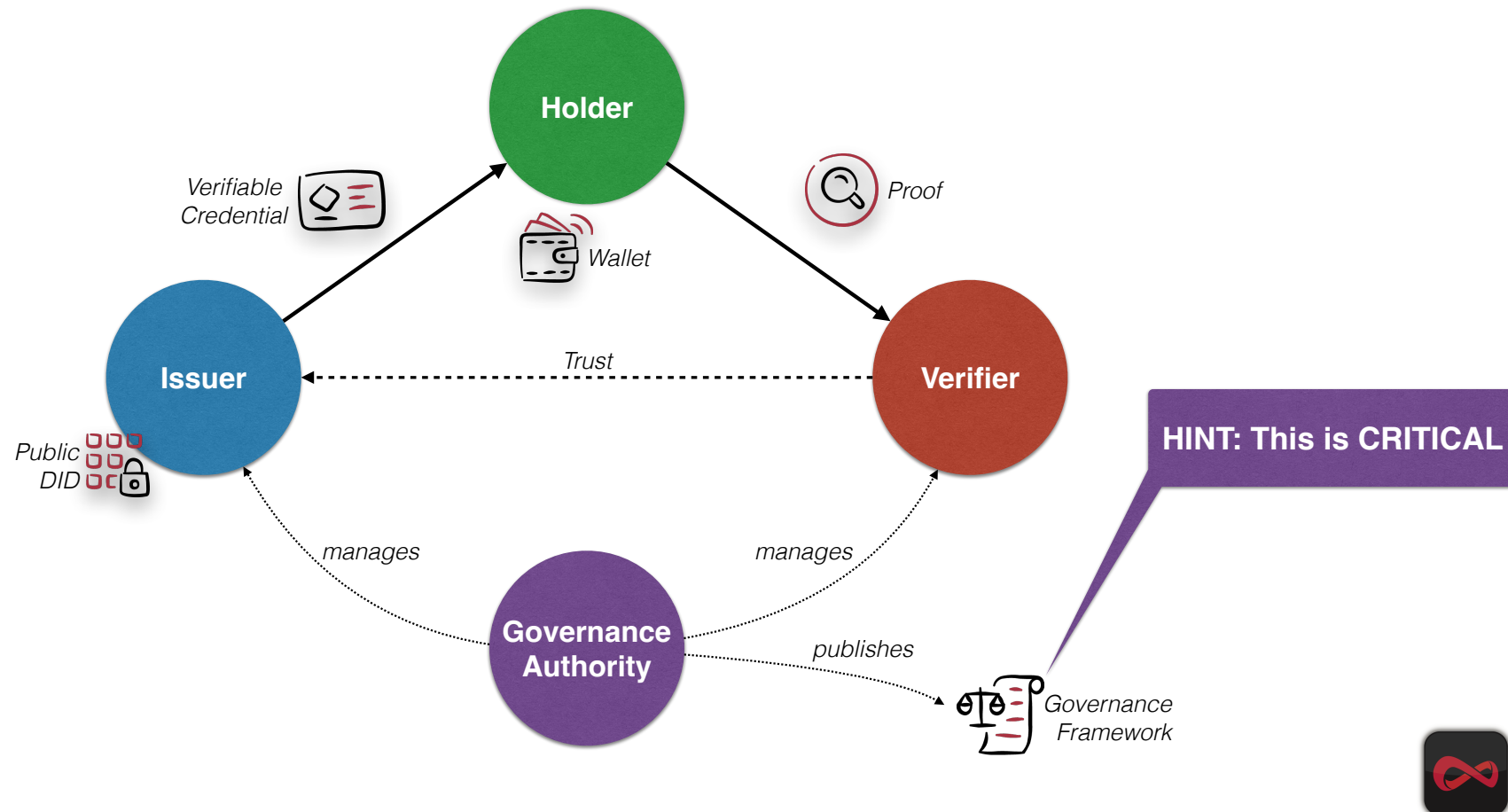
The “Triangle” Isn’t Enough...



How does the Verifier know the Issuer is Authoritative?



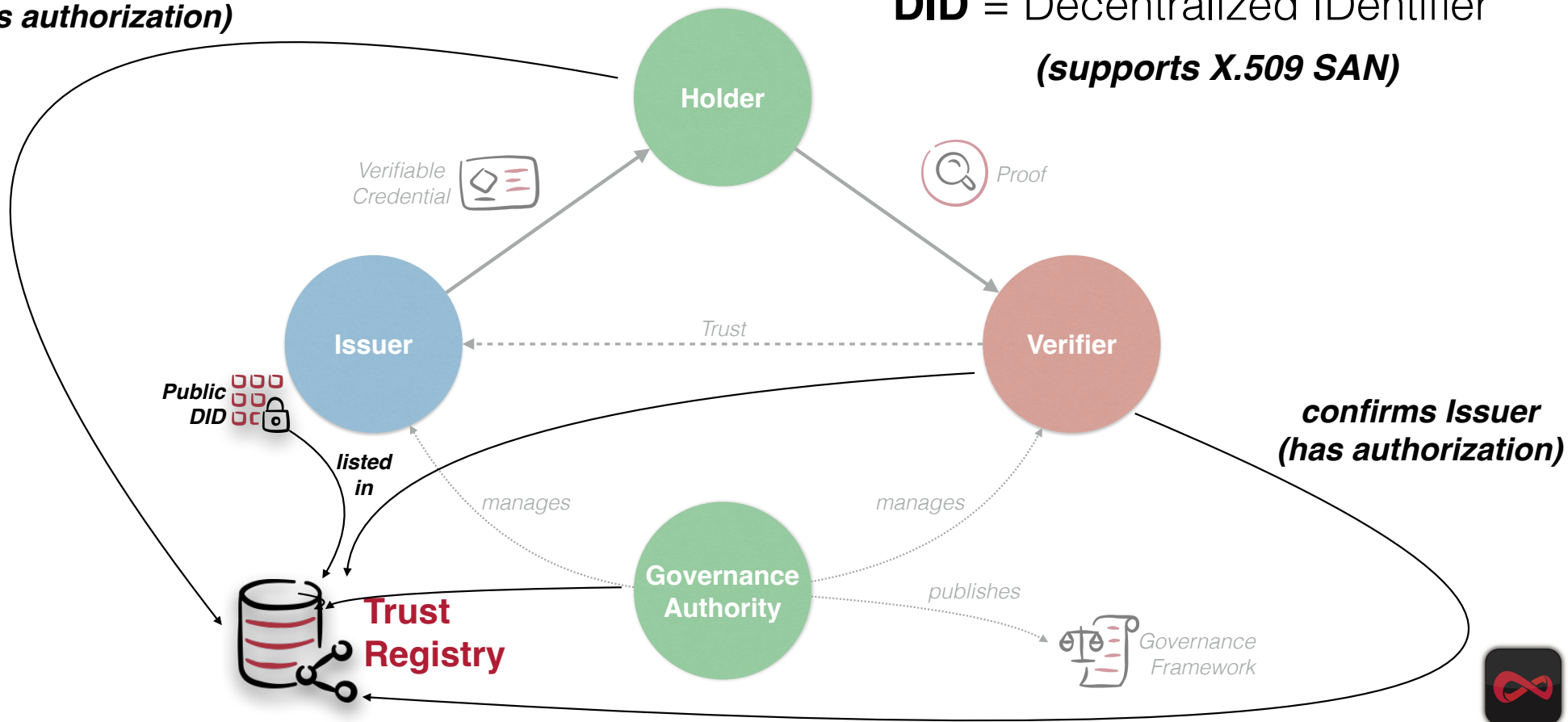
It's A Diamond - Anchored by Governance



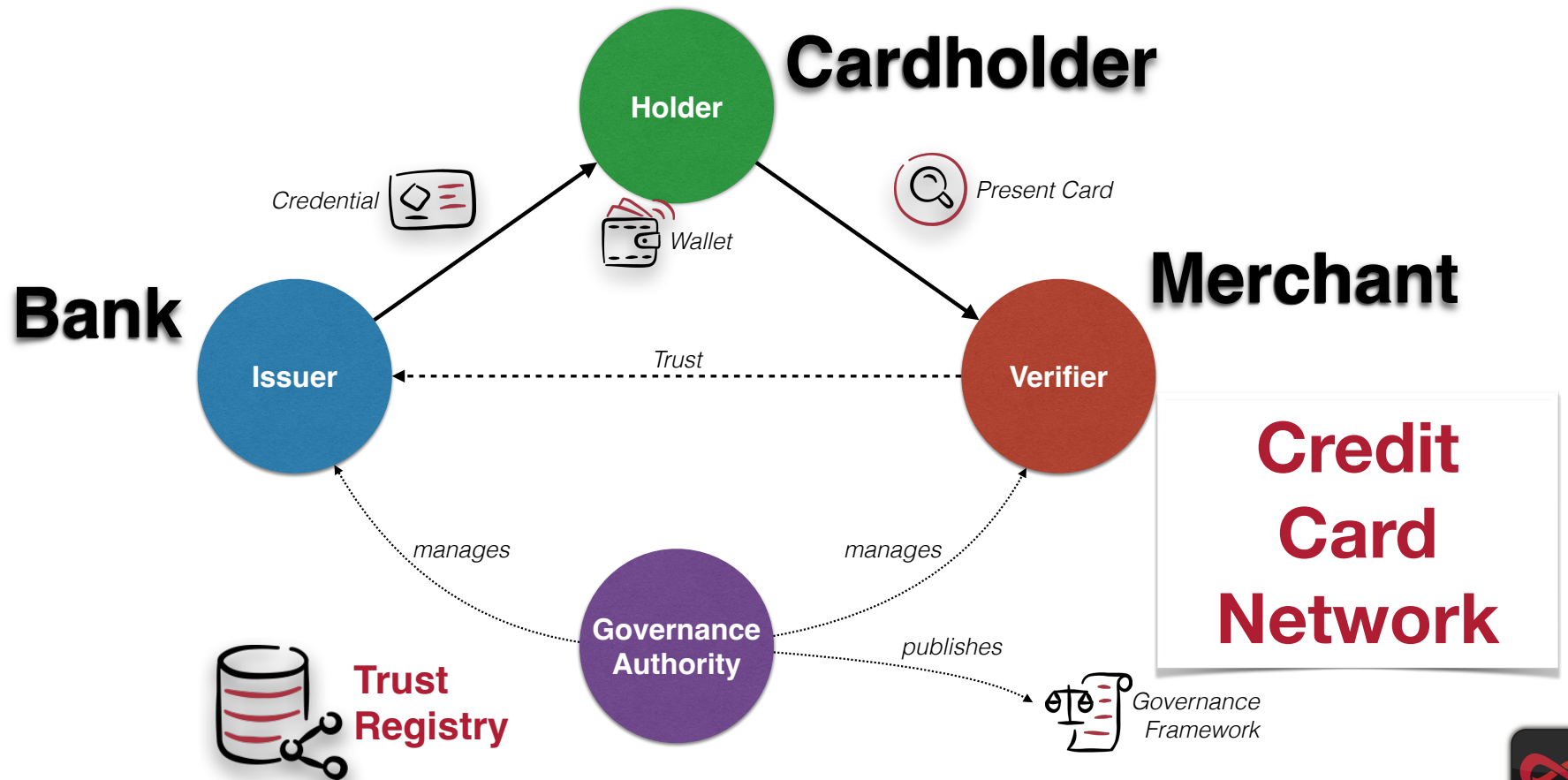
Governance -> Trust Registry

*confirms Verifier
(has authorization)*

DID = Decentralized IDentifier
(supports X.509 SAN)



A Day-to-Day Example

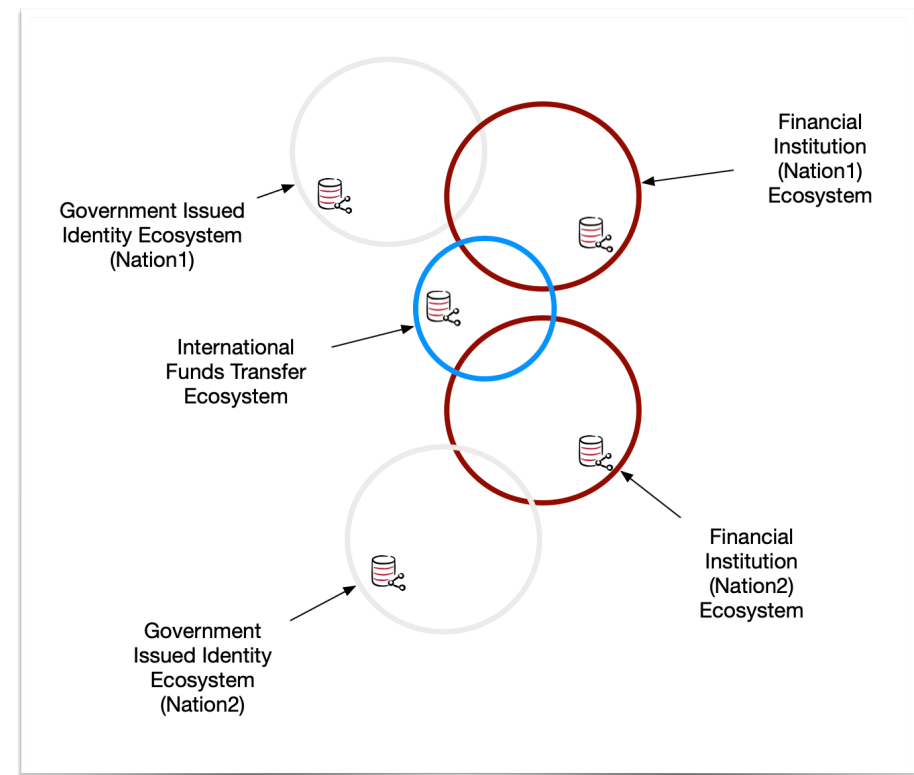


Registries are Critical

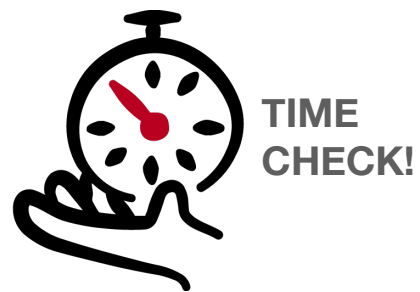
Trust Registries



- Trust Registries create the anchor point for **digital trust ecosystems**
- Tying **Technical** and **Human Trust** into the **Trust Layer**
- Brings **Governance** to play where needed.
- We are in **MANY ecosystems**



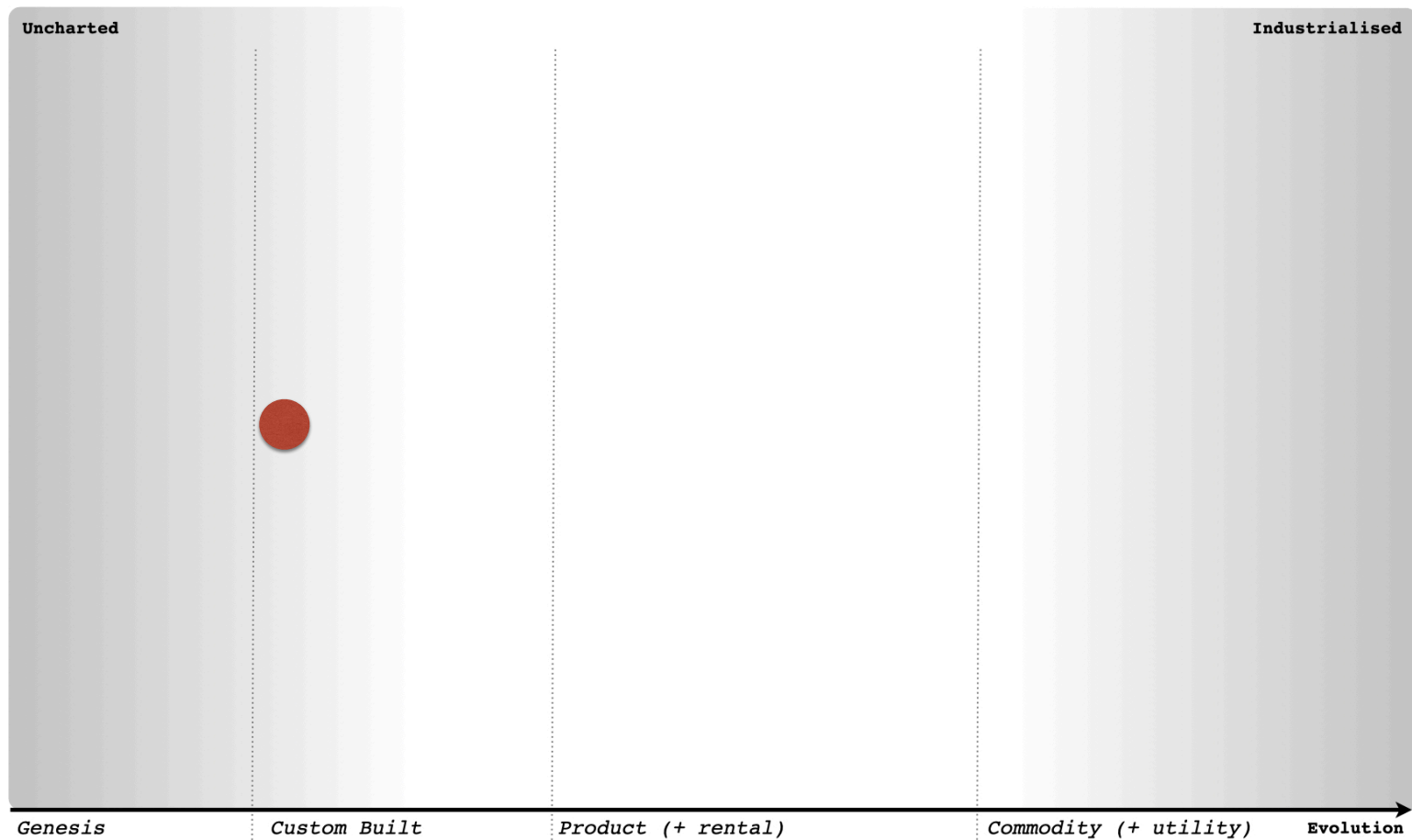
Interoperability



**I do not have good news on
interoperability.**



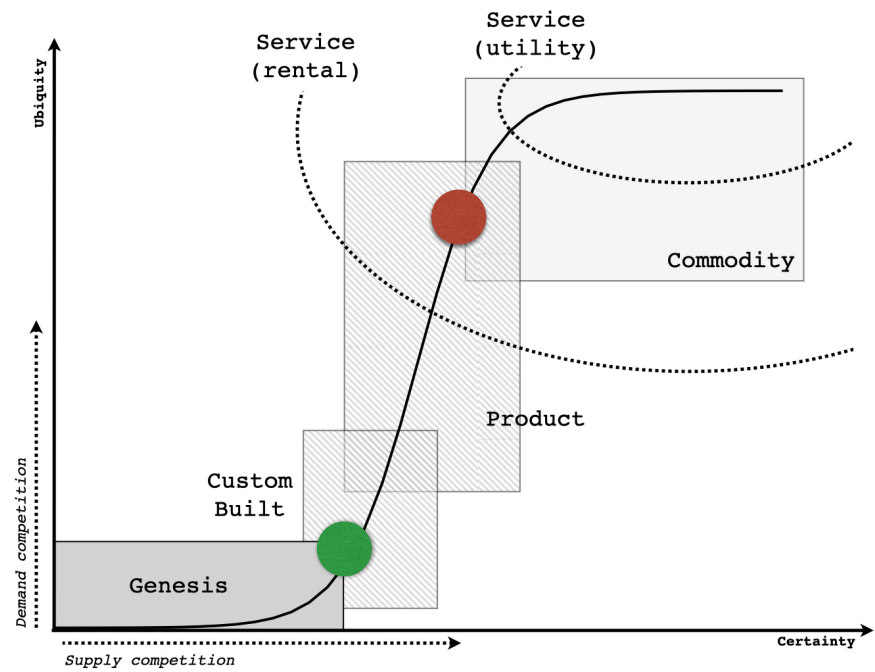
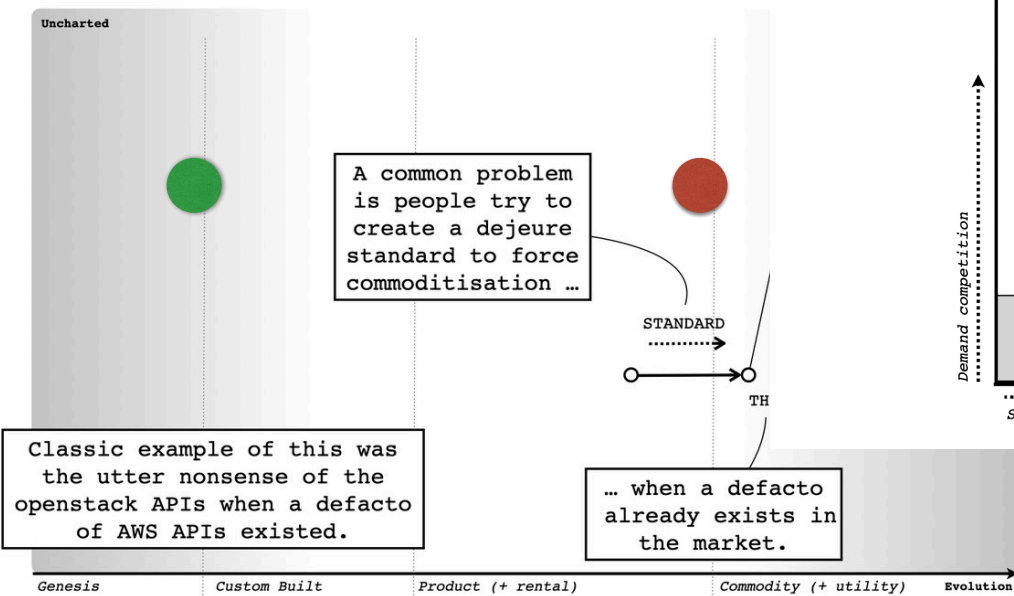
Where Is The Market?



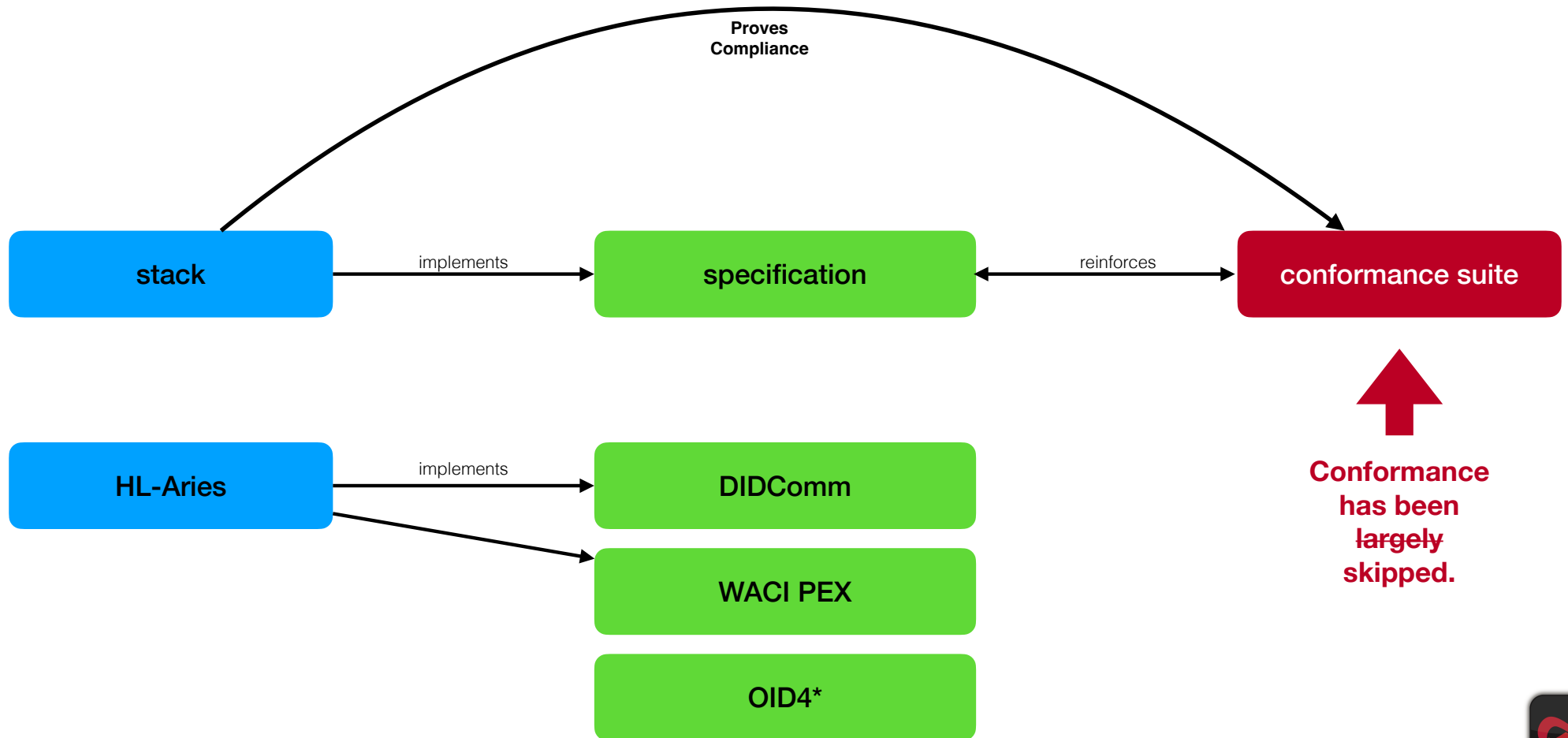
Premature Standardization

● We are here

● Standardize closer to here...



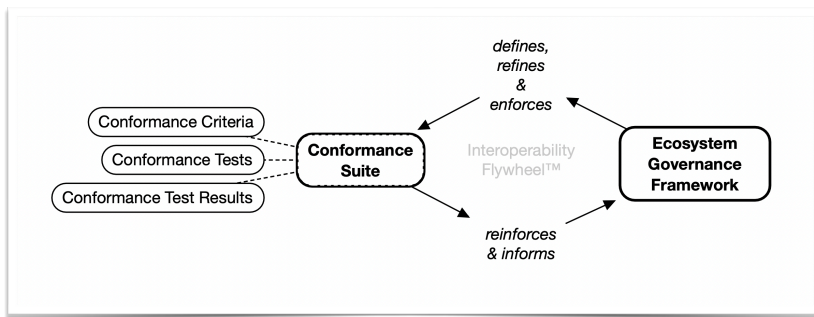
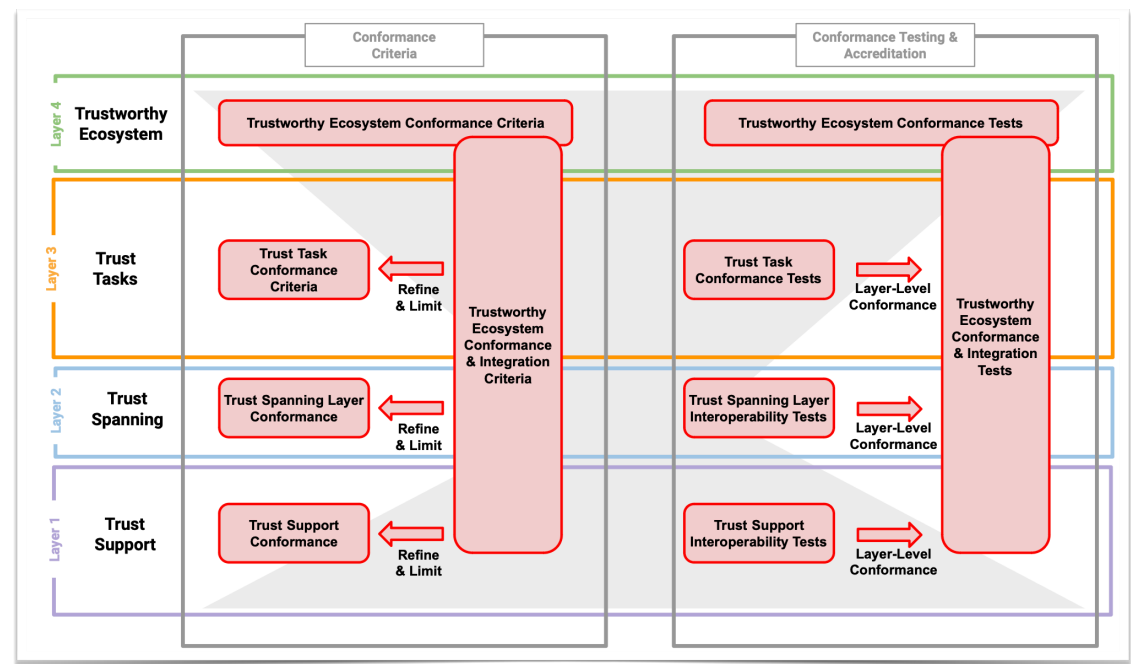
Interop Requires Conformance



Interoperability at Ecosystem Level

The Only Layer That Matter for Value Proposition

- Layer **defines** Layer-Level Conformance
- Ecosystem **Refines & Limits** Lower-Layers



So What Do We Do?

- Be **pragmatic** about **standards** and **interoperability**
 - They are both **destinations** that we can head towards
- Don't attempt to **control** everything - **influence** instead
 - **Participate** in standards and specs
 - Work with **real solutions** that aim towards standardization and interoperability
 - But don't **DEPEND** on interoperability and standardization yet.





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