

Verifiable Claims Task Force

Summary of Research Findings

Purpose of the Verifiable Claims Task Force

- Draft a **Problem Statement** and clarify if it was accurate and an unsolved problem.
- Gather data to determine if there was a desire to create an interoperable ecosystem around the expression and transmission of verifiable claims.
- Seek expert advice among the people that were involved in the creation of LDAP, SAML, OpenID Connect, XDI, SSL/TLS, and attribute-exchange related technologies in general.

The Problem Statement

There is currently no widely used *user-centric* and *privacy-enhancing* standard for expressing and transacting verifiable claims (aka: credentials, attestations) via the Web.

These problems exist today:

- There is no standard that makes it easy for users to assert their verifiable qualifications to a service provider (e.g. I am over the age of 21, I have an account at Bank X, my loyalty card number is Y, I am a citizen of the USA, I am a Chartered Financial Analyst, etc.).
- In existing attribute exchange architectures (like SAML, OpenID Connect, Login with SuperProviderX, etc.), users do not independently exist from service providers. This means users can't easily change their service provider without losing their digital identity. This leads to vendor lock-in, identity fragility, reduced competition in the marketplace, and reduced privacy for all stakeholders.
- There is no interoperable standard capable of expressing and transmitting rich verifiable claims that cuts across industries (e.g., finance, retail, education, and healthcare). This leads to industry-specific solutions that are costly, inefficient, proprietary, and inhibit users' ability to manage their digital identities in a cohesive way.

Research Input

- Survey: 43 organizations surveyed from payments, finance, education, healthcare, and government
- Interviews: 14 security, identity, and credentialing industry experts interviewed
- Community Group: Credentials CG consisting of 77 individuals participating over the past 18+ months on use cases, technology, and strategy discussions

The Research Findings

Areas of Consensus

- No User-Centric, Privacy-Enhancing Ecosystem Exists for Verifiable Claims
- Current Technologies Are Not Readily Solving the Problem
- W3C and IETF have an Important Role to Play
- Clear Use Cases Exist for Verifiable Claims (including Payments)
- Minimum First Step is to Establish a Way to Express Verifiable Claims

Areas of Concern

- Ensuring a Larger Vision is Effectively Communicated
- Scalability of Trust Model with Thousands of Issuers and Consumers
- Compelling Business Models and Deployment Economics
- Business Model for Basic Ecosystem Infrastructure
- Slow Evolution of Agent-Centric Designs
- Long-Lived Identifiers, Key Management, and Revocation of Credentials
- Protection Against Fraud and Abuse
- Re-using Previous Work Efforts

Payments Use Cases

Payments Use Cases

- Shopping Cards and Digital Coupons (customer loyalty)
- Verified Shipping/Billing Address (reduce mis-shipped goods)
 - 4.7% of all goods are mis-shipped, \$35-\$75 per package to rectify
- Proof of Account at Bank (international remittances)
- Proof of Age (for purchasing age-restricted goods/services)
- Identity Proofing (Know Your Customer, Anti-Money Laundering, Large Value Transactions)

Next Steps

- Propose a Draft Charter for a Verifiable Claims Working Group
- Focus work on data model and syntaxes
- Clear vision toward an issuing, storage, and request protocol
 - Re-use an existing protocol, or create a new protocol in a future WG
- Current Draft Charter Proposal