

Of trust frameworks, marks and elements

- Trust frameworks and trust marks are ambiguous and misconstrued terms.
- What we have some understanding of is many of the trust elements that can be used, in concert, to build frameworks and marks.
- The elements fit well into a periodic table showing the issues (e.g. legal, privacy, operational) that they address and indicating the layers that deal with them
- There are new elements still be discovered, and the organization of the table is malleable
 - E.g. Hub and spoke versus multi-lateral federations

Aspects of the Periodic Table

- Most current version of the periodic table is at <https://spaces.internet2.edu/display/scalepriv/>
- Rows represent scale, from the relatively few federated operators at the top to the thousands of organizations and millions of users at the bottom
- Colors represents business functional areas, including technical, operational, policy, legal, etc.
- Clusters of elements represent related sets of issues, such as the technical requirements needed to trust attribute authorities within a federation

Aspects - 2

- Changing the row of an element is a policy architectural policy, reflecting the nature of specific COI circumstances; hub and spoke federation address many elemental issues as operator rather than member of the COI decisions.
- Changing the color of an element is interpretive and reflects in which tabs of various documents those issues will be addressed
- The density of elements at the top is only a reflections of the authors' experience and awareness; over time many elements will be discerned at the lower layers
- It is also likely that as elements will in turn be distinguished into

The specific rows of the table

- Federated operators elements
 - Policy and financial
 - Technical
- Operator to members elements
- Member to member elements (the community of interests, aka Col)
- Attribute authority elements
- End-user elements

The colors of the table

- Policy and governance
- Technical
- Operational
- Legal
- Privacy

Notes

- The perspective, as reflected in this layers of table, is one of a multilateral full-mesh community of interest federation; hub and spoke architectures, or bi-lateral relationships may have different layering or placement of elements in layers.
- While the long-term path may be dynamic trust instead of federations, getting there requires the normalization of base-line behaviors that federations create.

Possible Next Steps - 1

- Discover new elements, especially in the lesser explored wetware areas
- Expand the explanation per element
- Reclassify some of the elements (e.g. recolor them from operational to technical, or legal to privacy)

Next Step 2

- Begin to look for a set of complementary trustmarks that, taken together, provide a fairly comprehensive trust framework
 - E.g. a federated operators technical mark that could be coupled with privacy marks, accessibility marks, schema standards, etc.
- Identify points of consistency needed for interfederation and places where dynamic mappings can be done

A Possible Taxonomy

- Trust elements – specific issues, hopefully identified in the periodic table, that could affect the overall trustworthiness of an interaction
- Trust marks – a selection of elements, and values/processes/procedures assigned to the elements, that focus on a particular thematic issue, such as transactional privacy, accessibility, COPPA compliance, etc.
 - Trust marks may include elements from many layers of the periodic table, but with a specific certification in mind
 - Trust marks are not “end-end”
- Trust frameworks – a comprehensive set of elements, and associated values, intended to provide a general, extended basis for trust for a COI
 - Extended includes many steps in the trust chain, making it harder and for general use, making it still harder
 - User, IdP, RP, Federated Operator, Attribute authority, Portals, etc
 - Trust frameworks may be silent on many elements, awaiting community need, keeping an almost impossible task bounded
 - Trust frameworks will use some trust marks operationally and transport many more marks as payloads in metadata, etc.

Contributors

- And other elemental folks . . .
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