

Attribute Schemas

Tao of Attributes Workshop

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Attribute Schema Dynamics

Remember: attributes only have meaning in context, mission, transaction

- Traditional model (common schema)
 - Collaboration costs: Maximal (all parties must buy in)
 - Power bias: IdP driven
 - RP/IP mismatch: Maximal (one end-to-end binding)
 - Breakdown: Each IdP starts minting their own (opaque)
 - Security model: easily understood, familiar (end-to-end crypto)
- Brokered model (common intermediate schema)
 - Collaboration costs: less (small central group, IP/RPs mappings)
 - Power bias: Broker driven
 - RP/IP mismatch: minimal (two “local” binding)
 - Breakdowns: unknown
 - Security model: Risk-based, trusted third parties, unfamiliar

Mapping Schema Learnings

- Structural richness helps
 - Makes mappings simpler
 - Attribute metadata
 - Usual: Data-type, labels, validator, example value
 - Others: Concept, source-of-attribute (provenance)
 - See http://wiki.idcommons.net/Existing_MetaData#1.2._Metadata_of_attribute_types (40+)
- Build for evolution (open world assumption)
 - Assume new attributes & structure will be added over time
 - Assume mappings will be added over time
 - URL attributes can be dereferenced to metadata (esp. common attributes)
- Store the mapping rules as data if/when possible

Attribute metadata, attribute mapping metadata

```
spin:constraint
  [ a      spl:Attribute ;
    rdfs:comment "Billing first name"^^xsd:string ;
    spl:maxCount 1 ;
    spl:predicate :bFirstName ;
    spl:valueType xsd:string
  ] ;
spin:rule
  [ a      p:fromPersona2Paths ;
    sp:path1 p:billingName ;
    sp:path2 <http://www.w3.org/2006/vcard/ns#given-name> ;
    spl:predicate :bFirstName
  ] .
```