Information Model discussion

Laurence Lundblade
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Four Information Model Concepts

1. One description for several serialization formats	• Only one description / notation is used to describe each information element (e.g. claim). CDDL is the primary candidate notation. • Multiple serialization formats are mechanically derived. JSON and CBOR are the primary candidates. • Aligns with Info and Data Models (RFC 3444) and Terminology for Policy-Based Management (RFC 3198) • Concept used in draft-ietf-rats-eat-01

2. One model for ALL of RATs	• A single common information RFC is created and normatively referenced by all other RATs RFCs
	   • Used by architecture document
	   • Covers all claims/assertion definitions (e.g. EAT)
	   • Covers conveyance protocols (TUDA, YANG module)
	• Concept used in draft-birkholz-rats-information-model-00

3. More sophisticated structure for claims/assertions	• More nesting, sub categories and structure of claims is needed to express complex entity / device architectures • This concept is manifest in the `submods` and `nested_eat` claims in draft-ietf-rats-eat-01
4. Typing and abstraction for claims/assertions	• Some data types should be defined that can be common to the definition of several claims • This is concept is manifest in the `StringOrURI` and `NumericDate` data type shared several claims in JWT (RFC7519), CWT (RFC 8392) and draft-ietf-rats-eat-01

Laurence's Preferences

1. One description for several serialization formats	• Essential • We clearly need more than one serialization format (CBOR and JSON); replicating a claim definition for each serialization format will be wasteful and error prone • CDDL is a practical solution that can work
2. One model for ALL of RATs	• Impractical because the span is too large • There will be several RATs documents authored by different people, that will evolve at different rates and exist for different purposes • Hard to update the common info model RFC every time a new claim is added or the architecture shifts or something is added to a conveyance protocol
3. More sophisticated structure for claims/assertions	• Yes, let's work on this (but this doesn't seem necessarily bound to the info model concept)
4. Typing and abstraction for claims/assertions	• Yes, let's work on this (but this doesn't seem necessarily bound to the info model concept)