Asset Profile – Data Requirements

• Identification
  • On-chain (token) unique ID – Network-specific ID
  • Off-chain unique ID – Off-Network (LegacyID, PhysicalID,...)
  • Normative identification
    • Code (e.g. LU0001234567)
    • Code Kind (e.g. ISIN)
    • Description (e.g. Prospectus/KID/ReferenceDoc/...)

• Capabilities
  • Transfer-ability
  • Trade-ability
  • Extinguish-ability
  • Tax-ability
  • Collateralise-ability
  • Confiscate-ability

• Ownership
  • CreatorID
  • ProcessorID
  • DistributorID
  • CustodianID
  • OwnerID

• Validity/Compliance
  • AssetDefinitionAuthorityID
  • Issuance Date
  • Expiration Date
  • AuditEvidence
  • AuditorID

• Jurisdiction
  • ownerJurisdictionScope
  • processorJurisdictionScope
  • creatorJurisdictionScope
Asset Instance – Processing Requirements

Asset Instances must:

• Be Identifiable: asset instances have universal IDs

• Be Typed: asset instances must contain an explicit reference to their assetProfileID

• Be Trackable: asset instances shall contain references to the previous ID in case of transfer

• Have “Serialisable stable”:

  $assetInstance = \text{deserialise}(\text{serialise}(\text{assetInstance}))$

• Have “Persistent stable”:

  $\text{serialise}(\text{assetInstance}) = \text{fetch}(\text{persist}(\text{serialise}(\text{assetInstance})))$

• Have “Hash stable”:

  $\text{hash}(\text{serialise}(\text{assetInstance})) = H,$
  where $H$ is identical in computing language and technological stack

→ Possible implementation: Serialisation w/ JCS (RFC8785), Signing w/ JWS (RFC7515)

Optional: An Asset Discovery Service may be implemented as a global directory of assets