

How to apply the Charter for Digital Assets:

THE INTEROPERABILITY FRAMEWORK FOR DIGITAL ASSETS

(IFFRA)

- This framework allows digital assets to move from web 2, to web 3 - a new digital habitat. The main distinguishing features being:
 - Tokenization (dematerialization & composability)
 - Contingent execution (programmability)
 - Distributed processing environment - state and storage (shared ledgers)
- To enable this, the Framework provides:
 - A common set of patterns which promotes interoperability at protocol level.
 - Open-source technical guidance, owned and written by technologists themselves.
 - An 'API model' for regulators and market participants to set policy requirements as a 'hook' into the technology.
 - The conditions for Layer 1 interoperability .

These principles below outline the things that must hold true for a asset-issuance-platform to enable issuance and usage of digital assets (or sought to be desirable), independent of how you implement them.

Technical Design Principles (Draft):

P1: All Subjects (roles), Objects (assets), Actions (functions) and State (for each S/O/F) within DLT systems (or asset manager platforms) are uniquely identifiable and distinguishable.

Description/comment: Most blockchains/DLTs have this already today, but they may not explicitly call this out.

P2: Guaranteed global identifiability, referenceability and persistence across time (for all subjects/objects/functions/states).

Description/comment: Persistence of bytes (representing subjects/objects/functions) is core to record keeping (which is one value proposition of blockchains). These bytes must persist 20-50 years.

P3: State safety: all state changes (to subjects/objects/functions) result in an equivalently safe state.

Description/comment: Safe state includes ACID properties, but also refers to protection of keys, privacy of data etc. (i.e. data related to subject/object/function).

P4: Bounded trust: the boundary for the operations of subjects/objects/functions/state must be well defined.

Description/comment: The boundary for the applicability of P1-P2-P3 must be defined first, else it is impossible to guarantee anything. You cannot (should not have to) account for anything occurring in a different blockchain.