



Flash Memory Summit

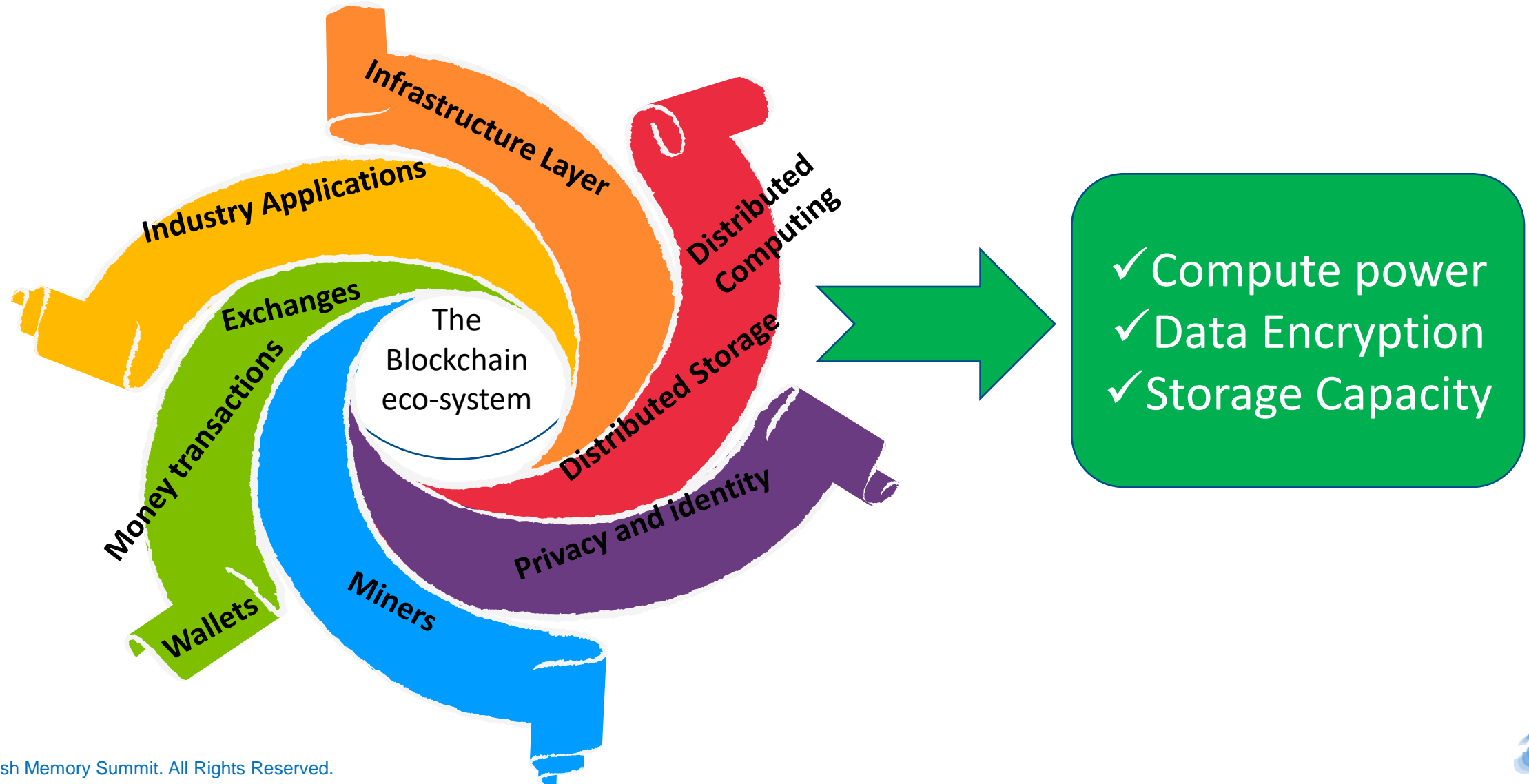
Blockchain Interoperability and why we need it

Olga Buchonina
ActionSpot
2022



- Move/exchange data across chains
- Data anonymization
- Data Identity protection
- Transaction Synchronization
- Trustless protocols

Blockchain Eco System and Trends



What Role Interoperability can play for Blockchain



Flash Memory Summit

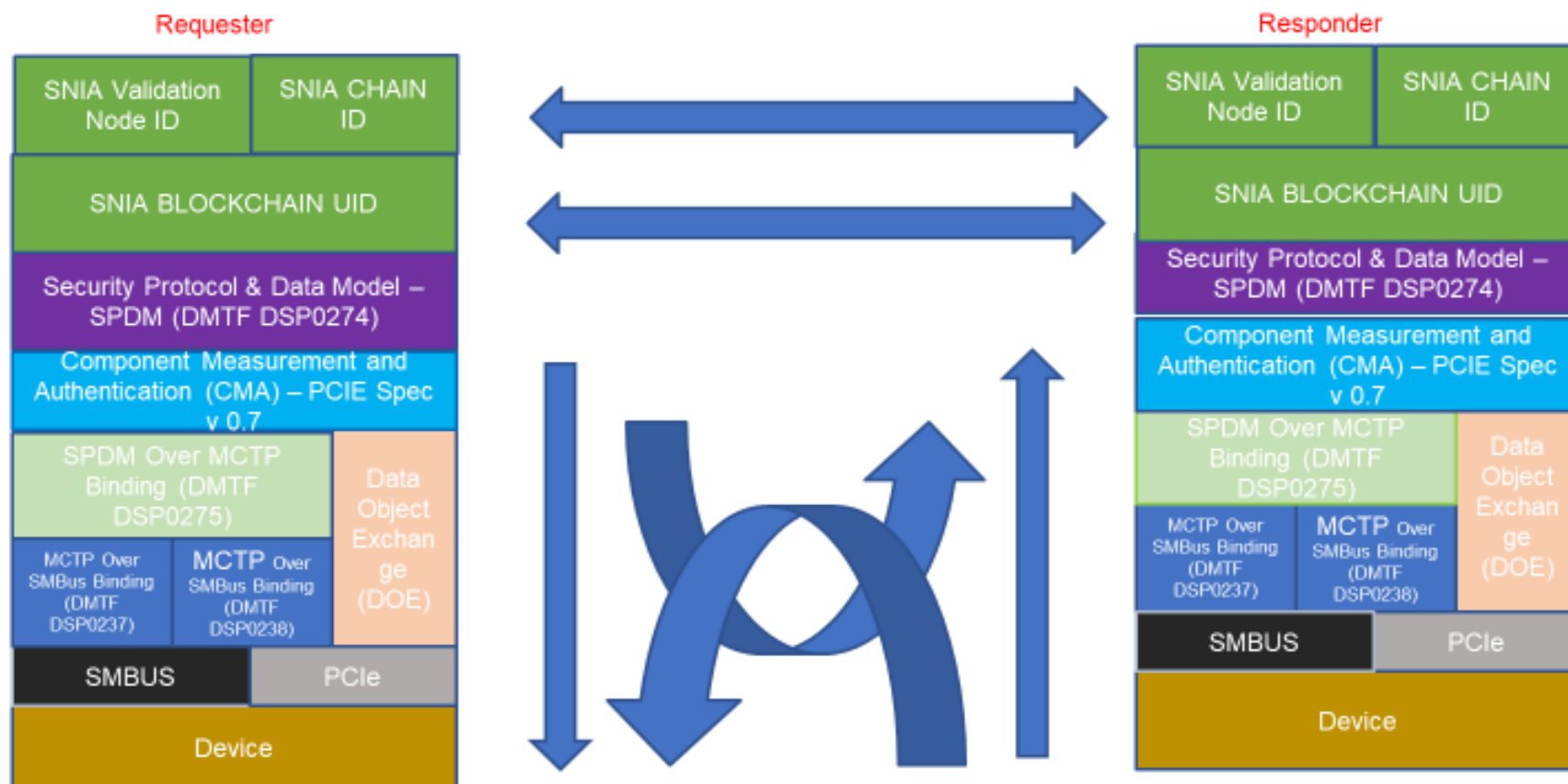
Trends in Blockchain

- Expansion of Metaverses
- NFT & Social Media
- DeFi Security
- Blockchain Security Becomes Enterprise-ready
- Decentralized Governance improvements in web3

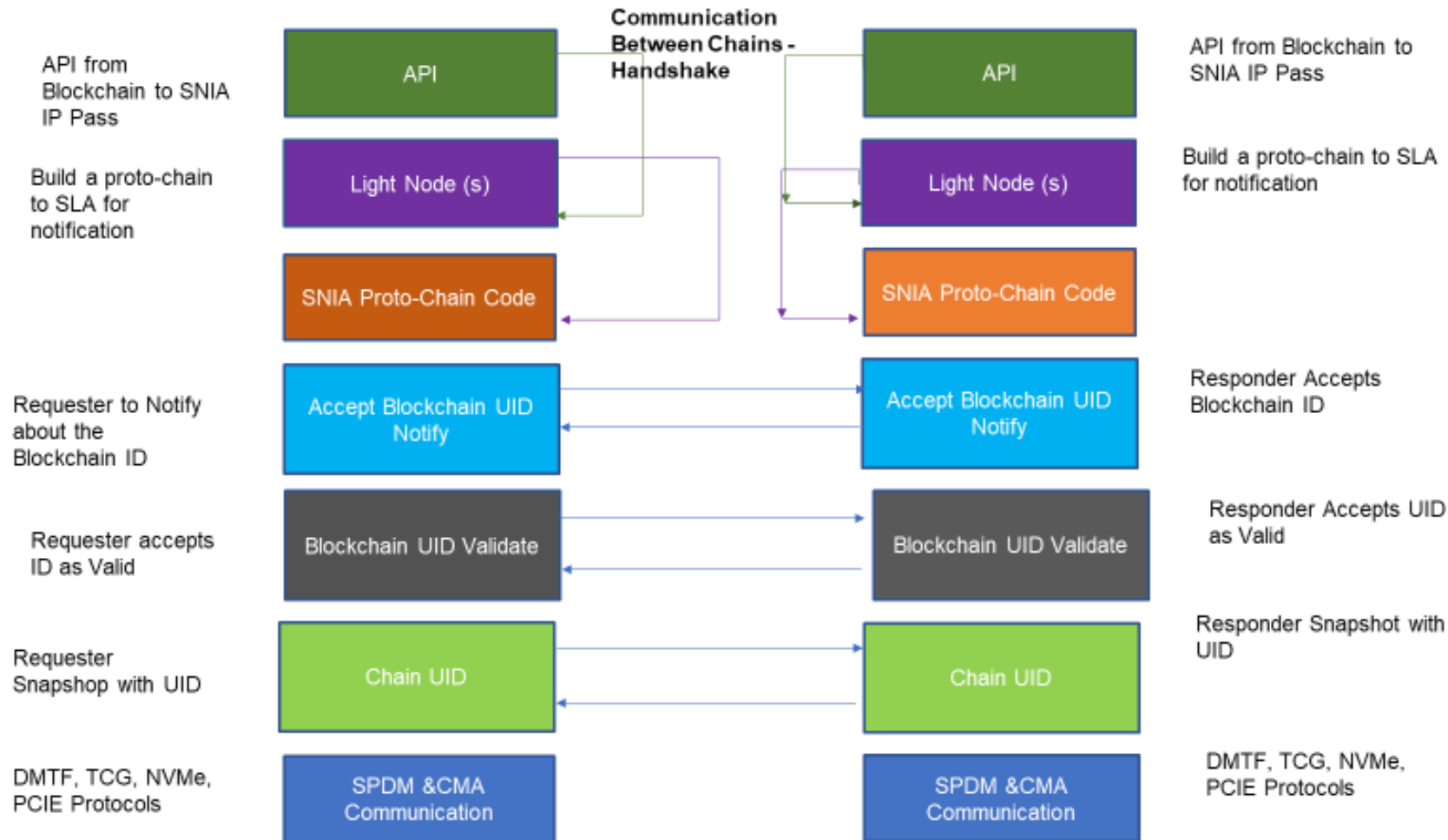
Interoperability is the KEY to multichain world

- Solves pitfalls of web2.0
- Introduces wider adoption of web 3.0
-

PROTOCOL LOW LEVEL COMMUNICATION



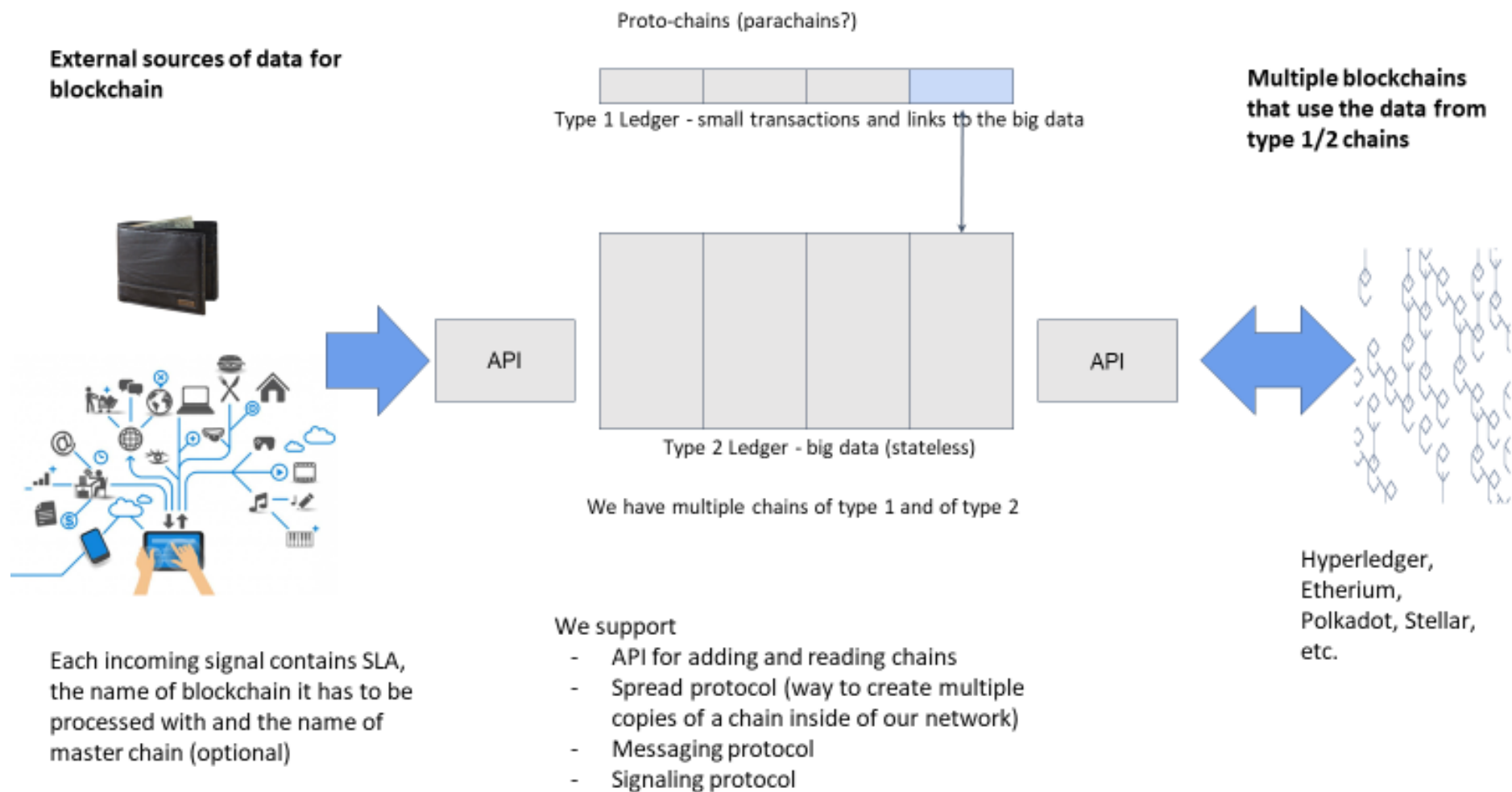
Proposal for Data Storage Communication Interoperability



Data Storage Centric proposal for Interoperability



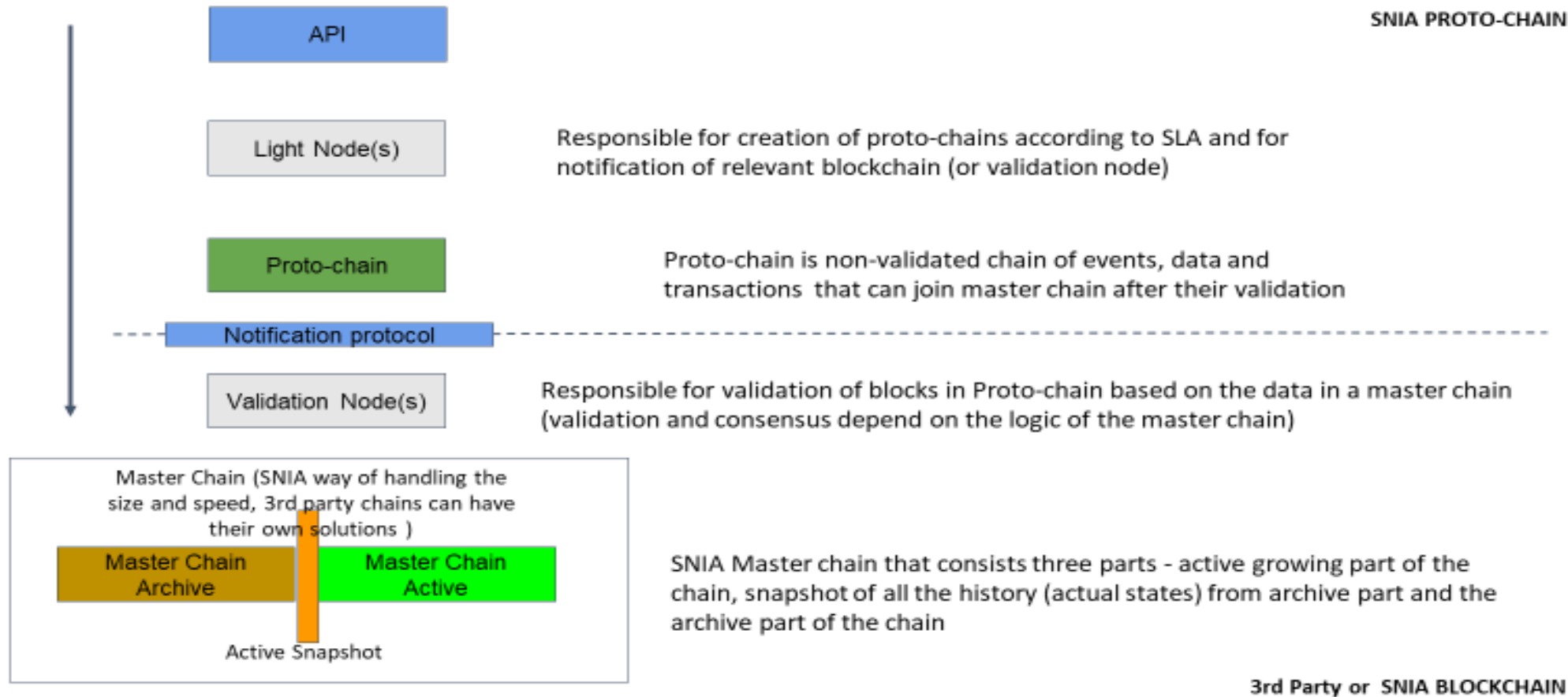
Flash Memory Summit



Data Storage Centric proposal for Interoperability



Flash Memory Summit

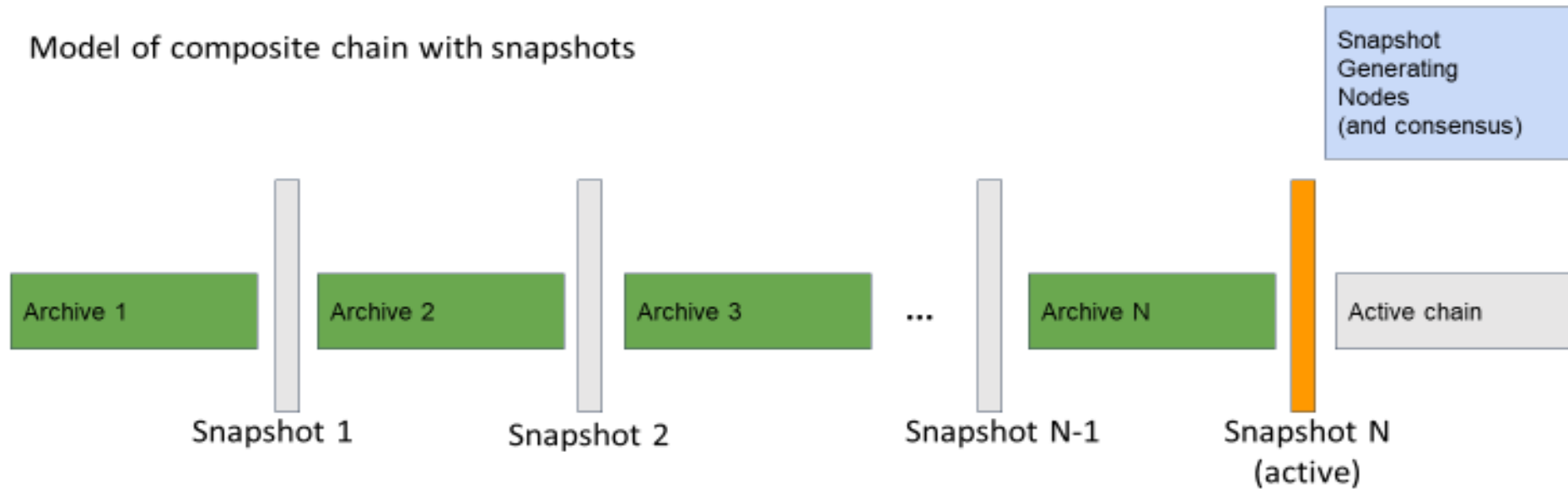


Data Storage Centric proposal for Interoperability



Flash Memory Summit

Model of composite chain with snapshots



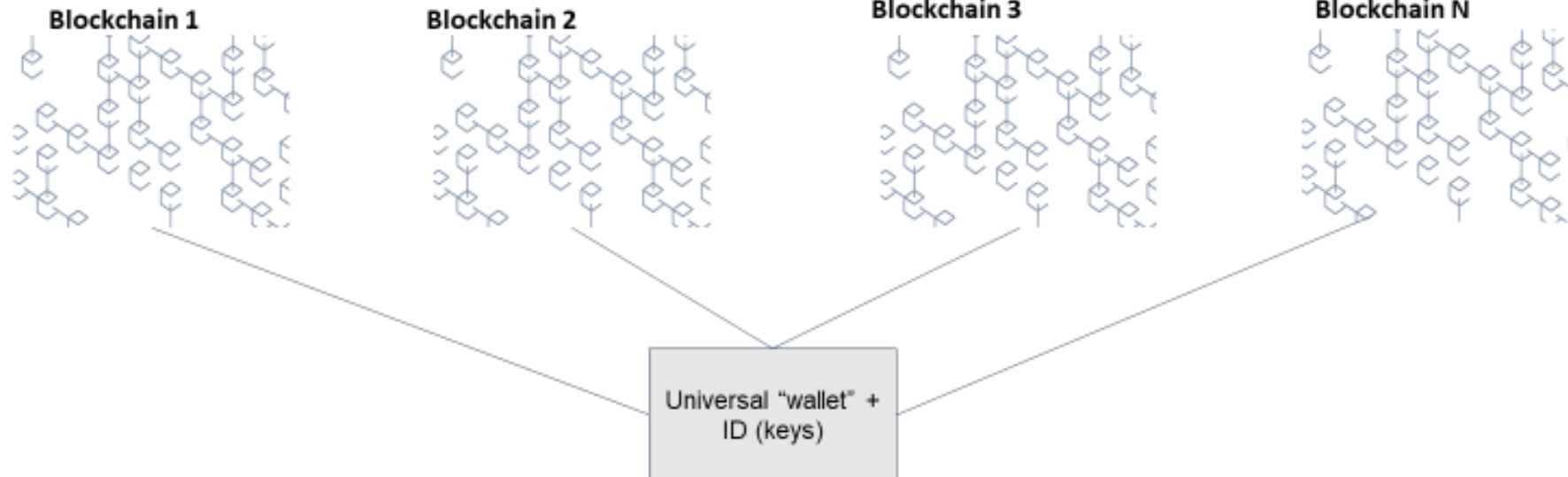
SNIA®

Data Storage Centric proposal for Interoperability



Flash Memory Summit

Universal wallet & ID



"blockchain-independent wallets" - wallets that are associated with a private key that acts as universal ID and can handle transactions in any blockchain. The same way a passport is used as a universal ID in multiple transactions and in multiple independent systems.

This enables interoperability on a totally new level, and ***will eliminate the need for transferring the data from one blockchain to another one.***

Universal ID (UID)

UID is a hash of a public key

It represents (identifies) any participant in any transaction and associated with a wallet



To support concept of UID we need secure protocol that would allow automatically create wallet, associate it with UID, request address, provide hash of private key (or the key itself if necessary) etc. UID will be used to connect data from different blockchains the same way we connect tables in SQL and enable “commit”-like functionality for the whole transaction (or cross-chains smart contracts)

The next step is to introduce an official external register(s) for UIDs (subject to KYC), that would store connection between an actor and his UIDs and allow re-issue UID in a case of it being compromised or lost and facilitate transition of the data to new UID and to black-list compromised UID in all blockchains

Third step is to future improve security of UID with master UID, which is used to issue and activate different keys for different blockchains under the same UID, aka 1Password

CALL TO ACTION



Flash Memory Summit

Join SNIA Blockchain (<https://www.snia.org/blockchain>)
and IEEE Blockchain Initiatives
(<https://blockchain.ieee.org>)

Contact : olga@myactionspot.com



Q&A