

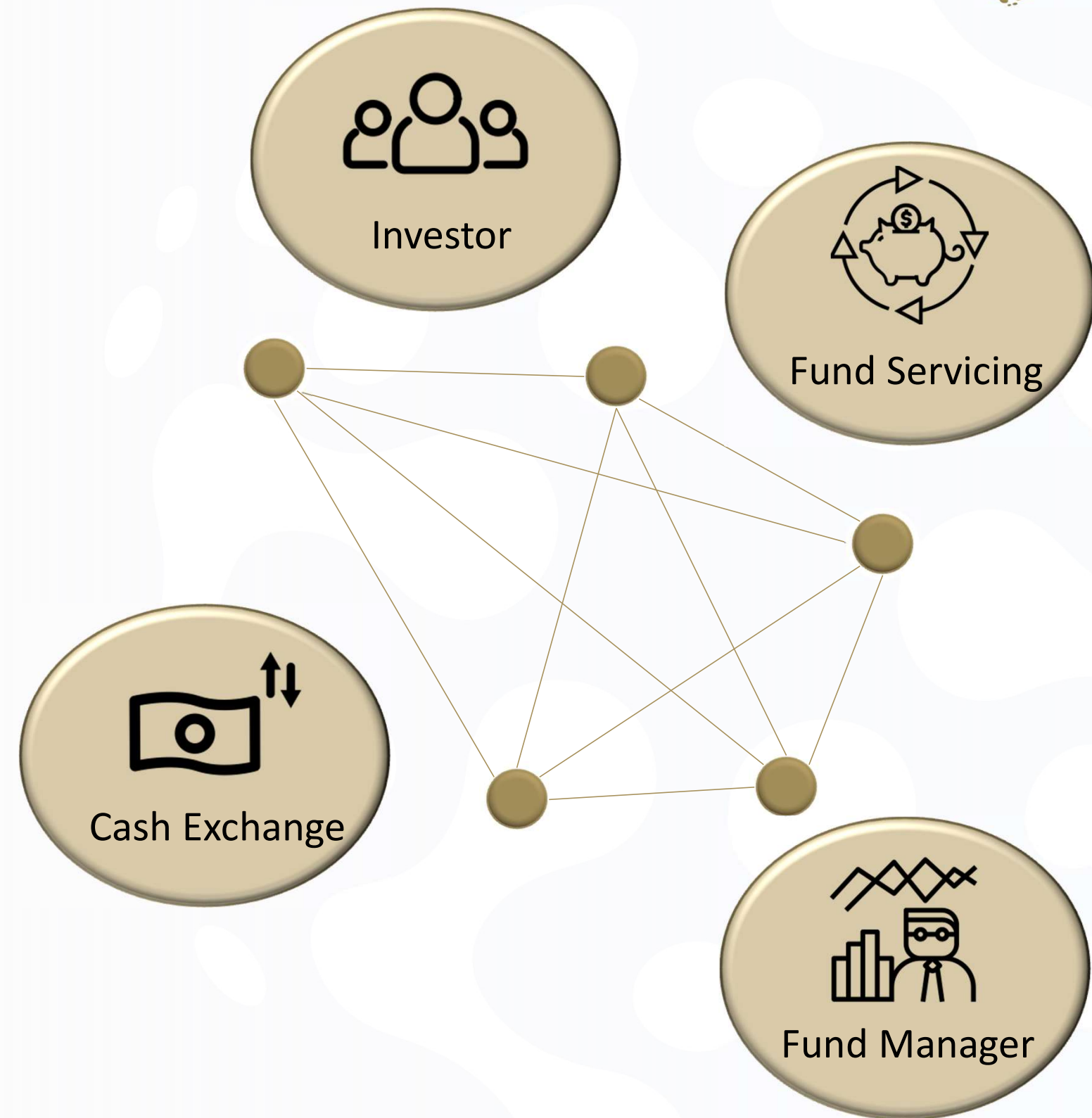


FAC

FAC Product Overview

FAC Network Introduction

- FAC is building an innovative distributed ledger-based network for launching, trading and settling collective investment funds
- FAC is a private, permissioned network built on R3 Corda Enterprise.
- The ledger is a series of independent nodes operated by each actor in the value chain.
- FAC processes transactions and settles them. Both cash and fund assets are tokenised in FAC and transaction finality is achieved on ledger by atomic settlement (a bilateral synchronised DvP).



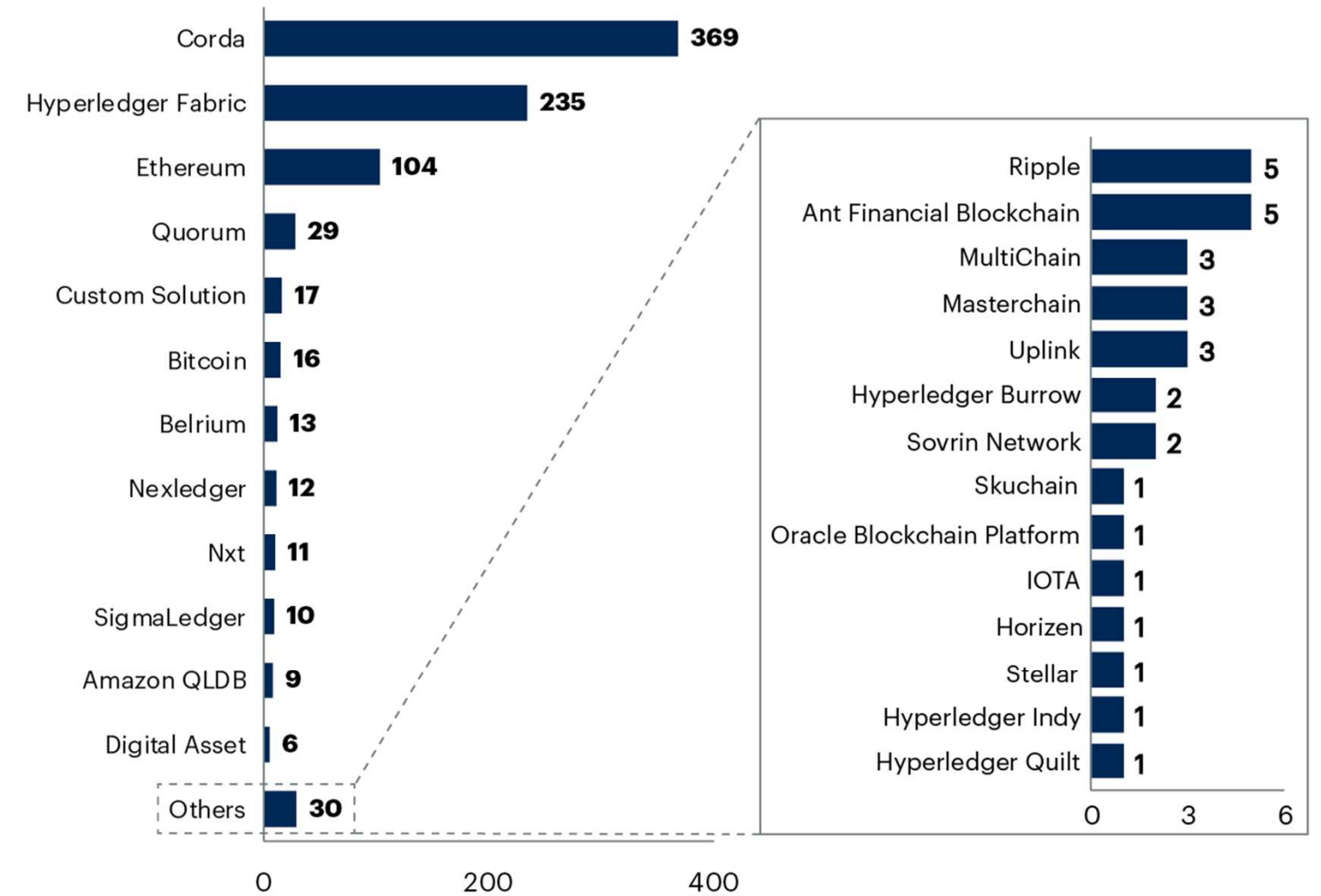
Why Corda?

Corda is a leading distributed ledger platform designed for enterprise.

For a solution to be viable in a regulated market we need:

- Permissioning (identity of participants know)
- Privacy (transactions only shared with participants)
- Scalablability (throughput maximised, no confirmation delay)
- No crypto coin needed to transact
- Operational Resilience
- Enterprise grade support (backed by R3)
- Thriving Developer Ecosystem

Primary Blockchain Technologies Utilized in Consultancy Engagements, 2020



Source: Gartner
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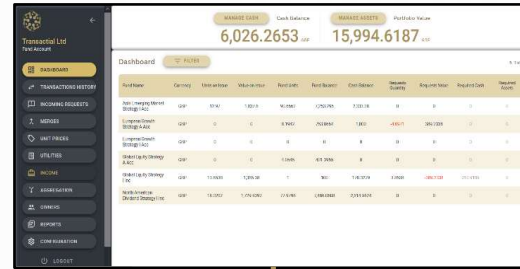
Gartner.

FAC Network Architecture

Trading in Fund Tokens



Issuing Fund Tokens



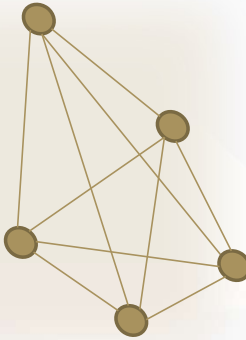
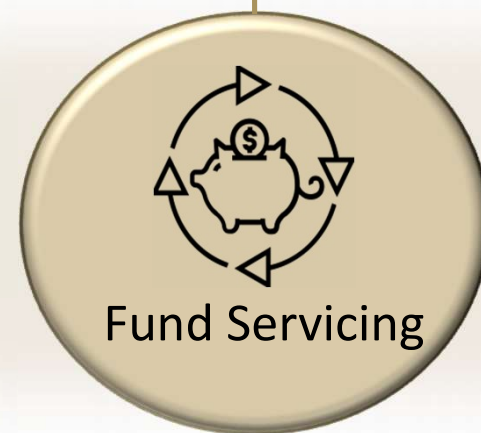
Issuing Cash Tokens



Access to real time cash flows



Participant nodes



FAC - Distributed Ledger Network

powered by
c.rda

Business
Network
Operator

Identity and
Access

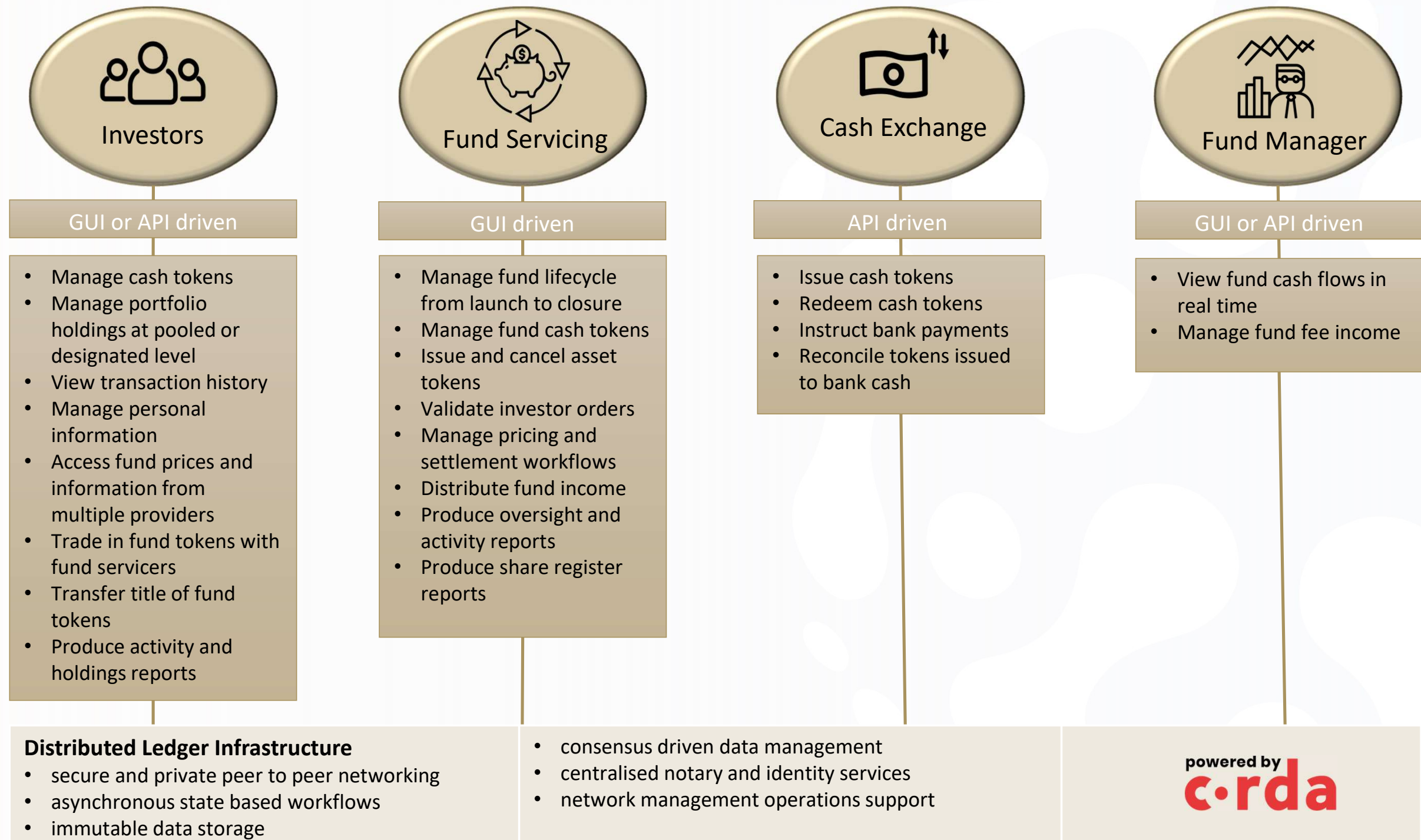
Network
Directory

Network
Notary

Network
Monitoring

Software
Deployment

FAC Functional Overview



Introducing the FAC Web GUI

- Users can access FAC nodes using a web based application.
- Each node has it's own interface with permissions configured to the role of the node (i.e. only a fund servicing node can price a trade)
- Using the web interface users on different nodes can take part in the end to end workflow across the distributed ledger



Investor
Node

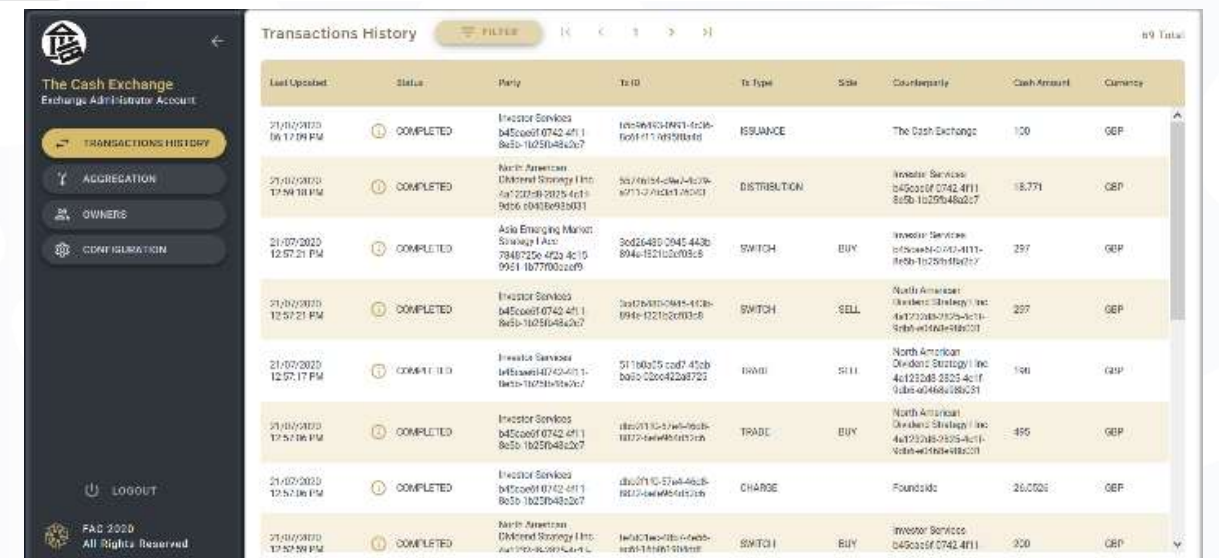


Fund
Servicing
Node



Fund
Manager
Node

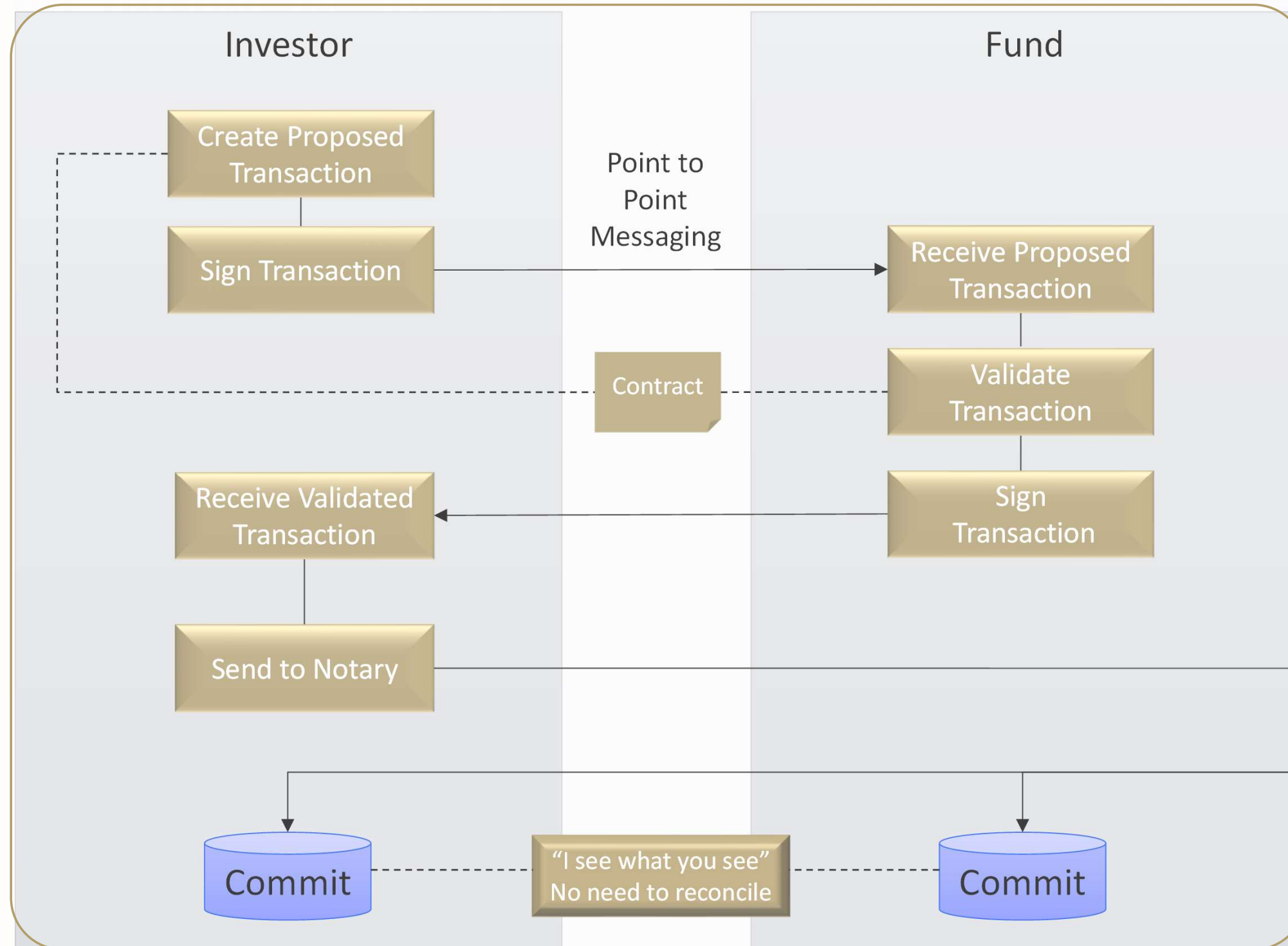
Cash
Exchange
Node



Operational Impact of Fund Tokenisation

- **Investors are active participants in the network**, not at the other end of a swift connection or a fax machine. Investors manage their identity on the network and the data related to that and will validate and sign all transactions they participate in.
- **Mutual fund shares are materialised.** Digital tokens (think 'share certificates') are exchanged and held as proof of ownership replacing the conventional dematerialised book entry system.
- **There is no central register of shareholders**, the distributed ledger defines the register. There's no single authority that has authority to change entries on the register without consensus from other participants.
- **Cash management is simplified.** Tokenisation of cash means there's no requirement for the fund manager to operate collection accounts and client money accounts and manage the reconciliation of cash to the trading ledger. Atomic settlement is a synchronised, conditional DvP.

How Consensus Works – Example Transaction

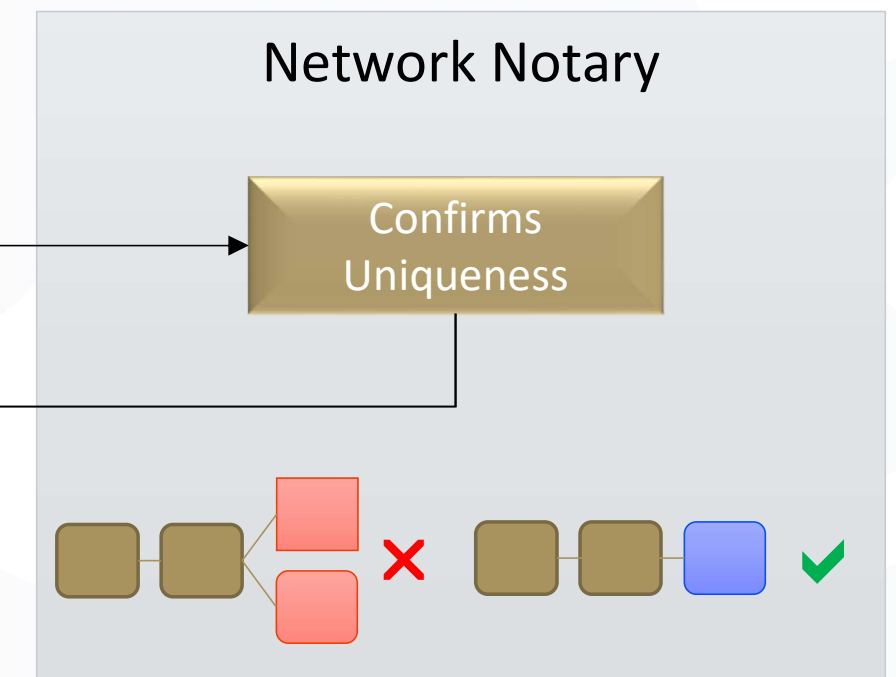


Consensus on FAC

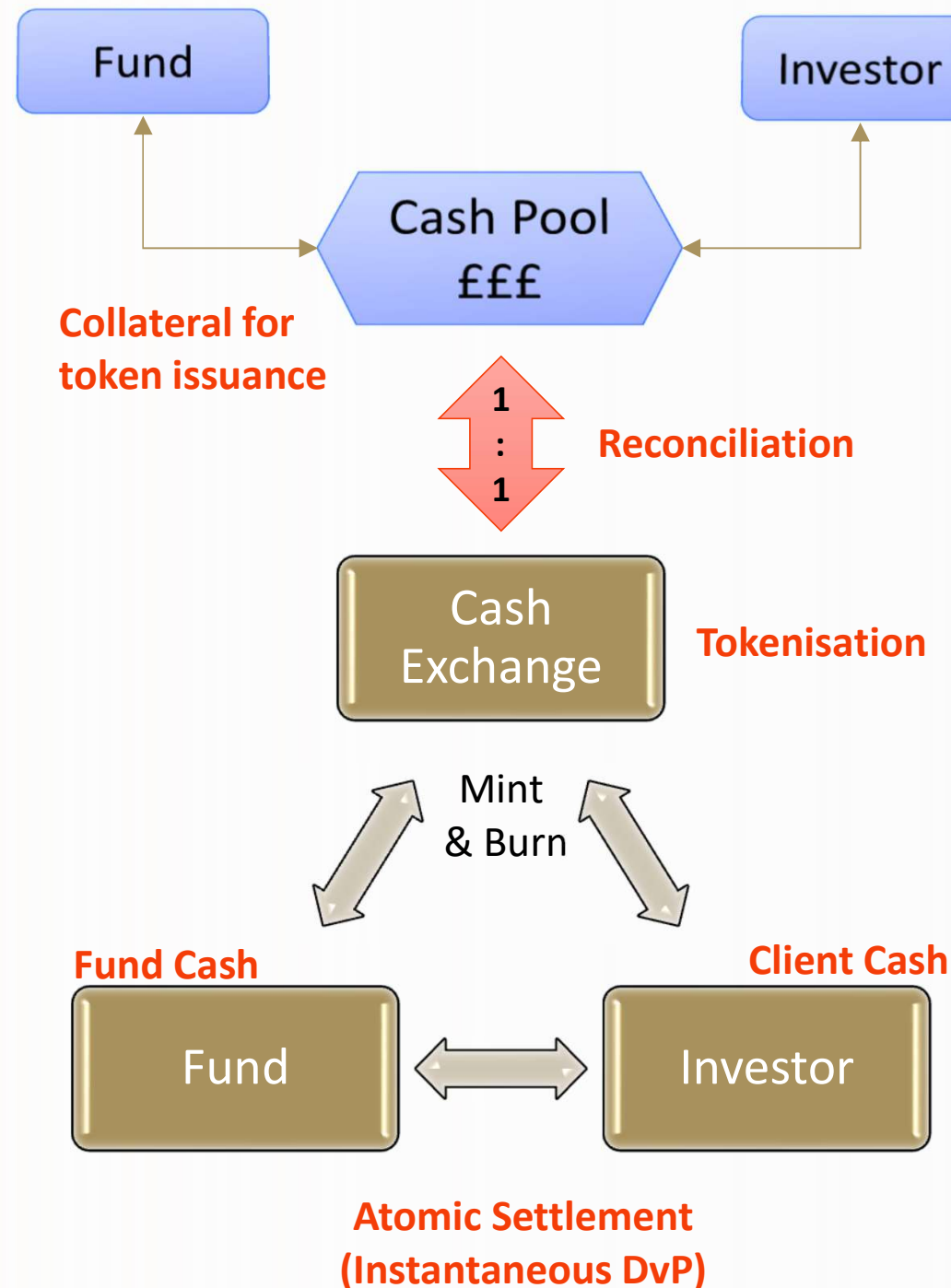
To be committed, transactions must achieve both validity and uniqueness consensus:

- **Validity consensus** requires contractual validity of the transaction and all of its dependencies
- **Uniqueness consensus** ensures validity of tokens and prevents double-spends

‘Agree and commit together’ rather than
‘Commit separately and check if we agree’



Cash Exchange Operating Model



The cash exchange operates a node on the FAC network which is responsible for issuing and redeeming cash tokens and maintaining a record of all tokens issued. This node will need to be integrated into a conventional bank account and payments service for off-ledger transactions. The cash exchange operator is responsible for operating both the conventional and on-ledger parts of the process, ensuring a strict 1:1 relationship between fiat cash collateral and tokens issued on the network.

The exchange process is expected to be highly automated with workflows for processing receipts and payments through the exchange and maintaining the reconciliation.

Once cash is tokenised it can then be used by network participants to atomically settle fund trades.

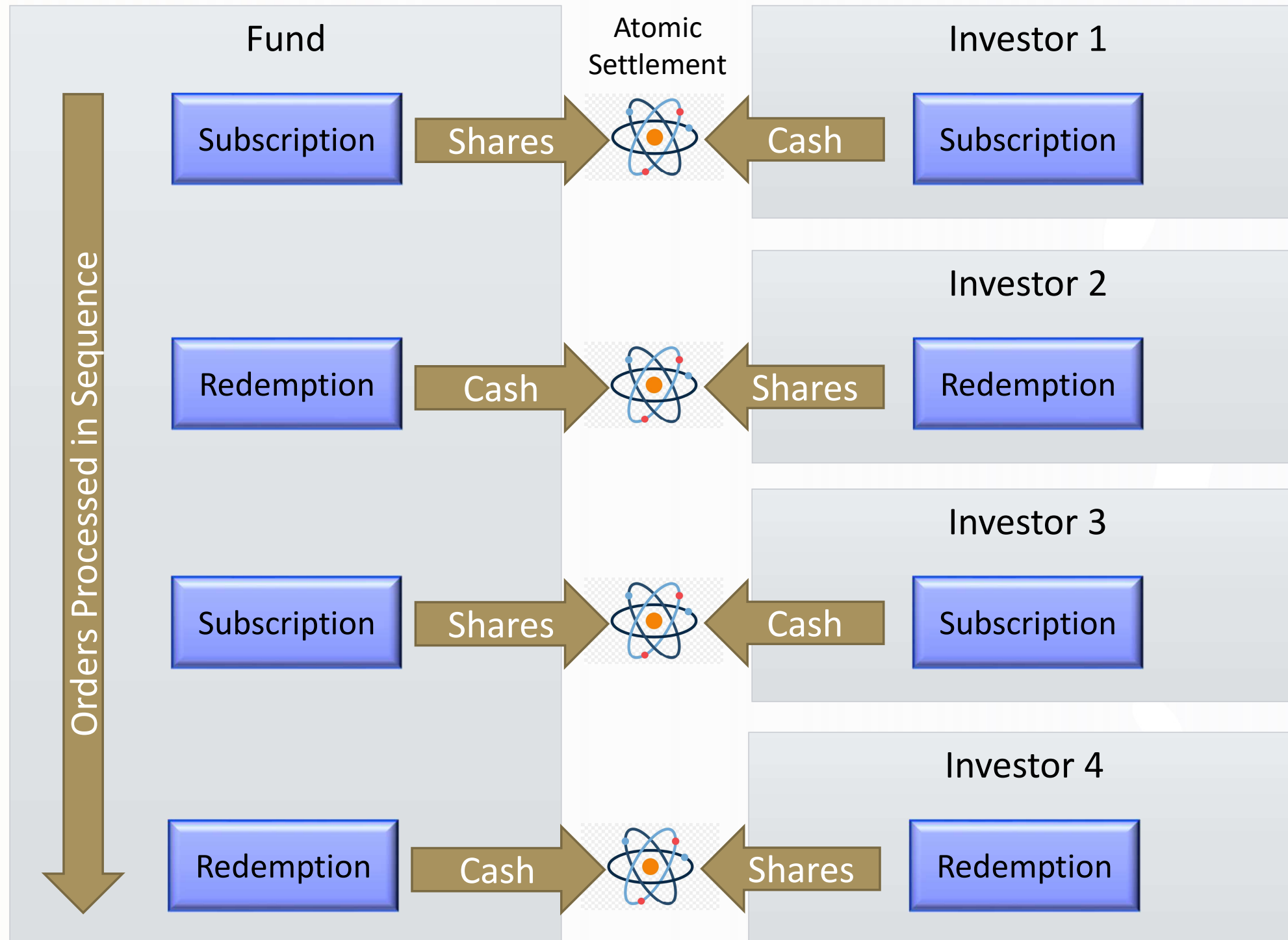
Atomic Settlement

Cash and fund shares are tokenised in FAC and transaction finality is achieved on ledger by atomic settlement (a bilateral synchronised DvP).



Digital assets are exchanged in a single, cryptographically secure transaction which collapses the DvP window, eliminates reconciliation and achieves finality

How Settlement Works



- Settlement is no longer a separate book entry and a bank instruction. It is a co-ordinated bilateral DvP with shares and cash being exchange digitally through token transfer.
- All orders for settlement are processed sequentially with the proceeds of one trade available to settle the next.
- Running out of available tokens will stop the settlement process.
- Before starting the node operator must ensure sufficient tokens (cash and shares) are available to ensure completion.
- On completion residual cash tokens would be returned to the fund and residual shares tokens cancelled