

A BLOCKCHAIN SHARED REGISTER

FOR A DIGITAL FUND INDUSTRY



Use of Digital Ledger Technologies (DLT)

FundsDLT provides a blockchain-based common register that is shared across all intermediaries in the fund distribution chain.

For asset managers and register agents

 to manage investor subscription and redemption orders of shares and units and to keep the register of the fund's shareholders.

For investor banks

 to ensure the protection of the property rights of the assets and to know, at any time and without delay, the position, values and operations in progress of each client.

The current operating models of transfer agents, who are tasked with maintaining investor records and tracking accounts among other duties, are geared towards dealing with institutions or fund distributors. As a result, in the present situation, they are often not used to dealing with large numbers of retail investors with small amounts to invest. It would simply be too expensive to service these types of accounts at volume.

However, new technologies are available and can be deployed throughout the fund distribution chain. These enable fund industry actors to create new operational models that are more inclusive of retail investors.

DLT is a very suitable solution when it is required to:

- Maintain the share/unitholder register(s) and mutualize redundant activities in a supply chain like fund distribution and remove the need for reconciliation from one actor to another
- Process investor transactions (commitments/ subscriptions) capital calls, redemptions, exchanges, transfers, distributions/dividends
- Process reconciliations.

FundsDLT uses distributed ledgers as a shareable infrastructure that facilitates maintenance of ownership details of investors, processing of transactions and automation of business processes. In this way, the existing distance and separation between trading and post-trading is much reduced. This means that both the transaction phase and the clearing-and-settlement phase can be carried out together automatically and rapidly. This automation is possible partly because of the programmed and pre-agreed conditions within smart contracts.

It is all about dealing with a high number of investors in the most frictionless and automated way.

Registrar Account Structure

FundsDLT operates with "wallets".

In FundsDLT, an account is made up of a cryptographic pair of keys: public and private. They help prove that a transaction was actually signed by the sender and prevent forgeries. The wallet is a storage of the investor's keys. It is a container to keep the key and software able to generate and sign the transactions or retrieve information such as investor balances.

To protect keys from abuse and loss, FundsDLT provides a core smart contract to each investor enabling multiple keys to access his property and by having, at a minimum, a "service provider" – the transfer agent and/or distributor and/or the ManCo – who is responsible for the KYC of the investor and has the ability to regenerate the means of access to the investor in the case of lost keys.

In order to execute transactions such as purchasing or redeeming shares, the investor must have rights to access their smart contract or should have delegated this right to an intermediary, a distributor for instance. The private key, a string of data, enables account owners to securely sign transactions or view portfolio information on the blockchain.



Data Accessibility

There are three ways for users to access FundsDLT data or applications:

User interfaces

- The user interfaces that are developed by our clients for their investors in which FundsDLT and other partners are integrated. This user interface is only used by investors to access their accounts, transactions, reporting and data.
- The user interfaces that is developed by FundsDLT for its clients. This UI is only accessible by FundsDLT clients in order to perform or follow up all operational activities (depending on the service model) from a back office perspective.

APIs

• Users of FundsDLT can access data or provide data to FundsDLT via a complete catalogue of APIs.

Nodes

 Nodes are only provided to FundsDLT clients. These nodes are delivered to the client on Microsoft Azure cloud infrastructure on the client tenant.

Registrar Maintenance

FundsDLT provides a full set of functionalities related to the maintenance of investor positions, whether these are linked to in and out transactions or generated by corporate events. All processes are automated and based on workflow event triggered. Manual intervention is only requested when business anomalies are detected.

	Account opening & investor onboarding	Orders processing & cash settlement	Register accounts maintenance	Reporting & client service	
Scope of services	Account Opening	Order receipt/routing	Register maintenance	Online dashboard	
	Name screening	Transaction validation	Corporate actions	Data/Reporting to stakeholders	
	KYC execution	NAV application/ TA confirmation	Fund Data	Client Service	
	KYC risk scoring	Fee/tax computation	Trailer Fees	User interface/API	
	Account validation	Cash settlement instructions	Distribution agreement	Investor services	
	Transaction screening and monitoring	Cash reconciliation		Periodic tax reporting	
	FundsDLT 3rd party (client or partner)				

Order Processing and Cash Settlement

Registrar accounts and share ownerships are adjusted at each execution of orders. It is then critical to have a fully automated process from front to back, especially when dealing with large number of orders, such as in a retail business. Orders are verified automatically based on pre-defined risk and compliancy frameworks and rules defined by the client.

The entire order workflow management is then executed with the maximum of automation.

FundsDLT can receive instructions from multiple means:

- Direct API connections
- Front-end APP
- SWIFT messages.

Registrar Accounts Maintenance

All registrar positions are accessible in real time.

In the case of an investment fund corporate event such as dividend payment, share split, merger, liquidation or other, FundsDLT provides all necessary functionalities to execute these operations.

All communication to stakeholders is in real time and provided via APIs.

Reporting and Client Services

FundsDLT provides a set of APIs that can easily be linked to third-party reporting and data analytics.



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