



Tracking and Reporting of Assets under Custody (TRAC)

A Business Case for Crypto Asset Custody Providers

ABOUT CRYPTOINDEXSERIES

CryptoIndexSeries™ provides institutions with data, benchmarks, access to trading and portfolio analytics API & tools for digital asset markets. CryptoIndexSeries™ products POWER institutions' in-house digital asset solutions through a robust API & enable them to SAVE cost, ECONOMISE on their resources, FOCUS on their strategic activities, and MAKE the right trading decisions on time.

Founded in 2019 in the UK and acting as a crypto data contributor to Refinitiv operating under LSEG, CryptoIndexSeries™ is THE trusted solutions partner for Digital Asset market participants.

EXECUTIVE SUMMARY

The partners of Custody Providers such as accredited investors, HNWI's and institutions all expect to have a way to monitor their own or their customers' digital assets held in their accounts. Expectations also include being able to view the balance information for various wallets, total valuation of their portfolios in a desired fiat currency, performance related data, PnL information, cost basis analysis, asset allocation breakdowns and so on.

Moreover, as digital assets are becoming more mainstream there is now a demand for reporting facilities to simplify regulatory requirements & obligations and even tax reporting, hence there is a need for account consolidation and further analytics.

For any custody provider, creating these capabilities in-house require qualified resources, time and money as well as domain knowledge both in crypto markets and financial markets. Not being able to offer these services timely to the current or potential client base would also introduce loss of opportunity and even loss of revenue for institutions.

CryptoIndexSeries provides Custody Providers with an affordable and easy to integrate service that can satisfy partners' expectations & requirements.

CHALLENGES

The Custody providers manage the MPC and cold wallets for their partners.

For reporting purposes, custody providers need the current balances in the desired fiat currencies and the asset allocation in the wallets in the pre-defined intervals (once a month, once in every 10 days, etc.). The following information would be the minimum required list for a custody provider to provide to their partners:

- Asset Allocation per Wallet with support for various blockchains (eg. Bitcoin, Ethereum, ERC-20 tokens, Algorand, Litecoin, Stellar, Avalanche, EOS, BNB, Celo, etc.)
- Pricing data
- Total value of the assets under custody in a defined fiat currency
- Portfolio Value for each partner
- The change in the portfolio value over time (performance index) for each partner

Here are some of the challenges in this process:

- Collection of transactions may be a manual process
- Collection of balances may be a manual process
- Valuing the wallets requires a reliable data feed and automation of calculations
- Reporting requires a reliable historical data source
- Turning transactional data into performance index requires development work.

Here is a quote from a Custody Provider requiring such a service:

"Currently we enter everything manually into a document, but we would like to automate this process.... we should be able to automatically generate a list of the current balances for each Partner, referring to the wallet addresses."



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PROPOSED PROCESS OPTIMISATION, ARCHITECTURE AND PROJECT MODULES

Assume that current process is as follows, there is significant amount of manual work involved.

This manual work means that the analysts and product managers can spend less time on focusing strategic, value-add activities.

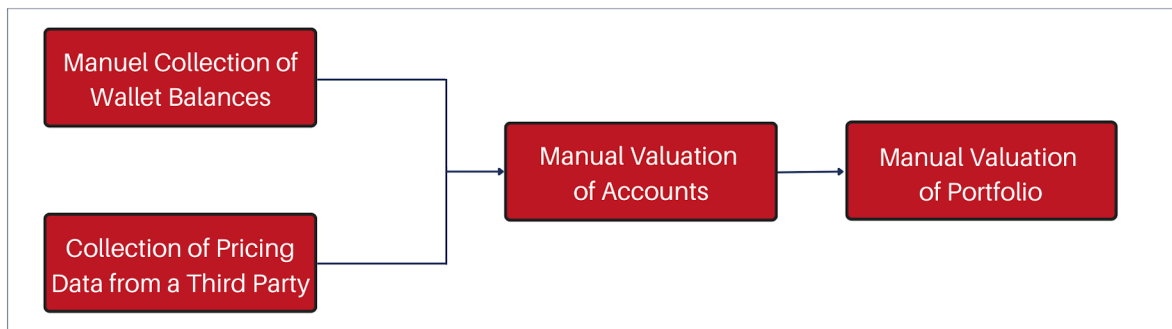


Figure 1: Current tracking and reporting process

We propose to automate this process as follows:

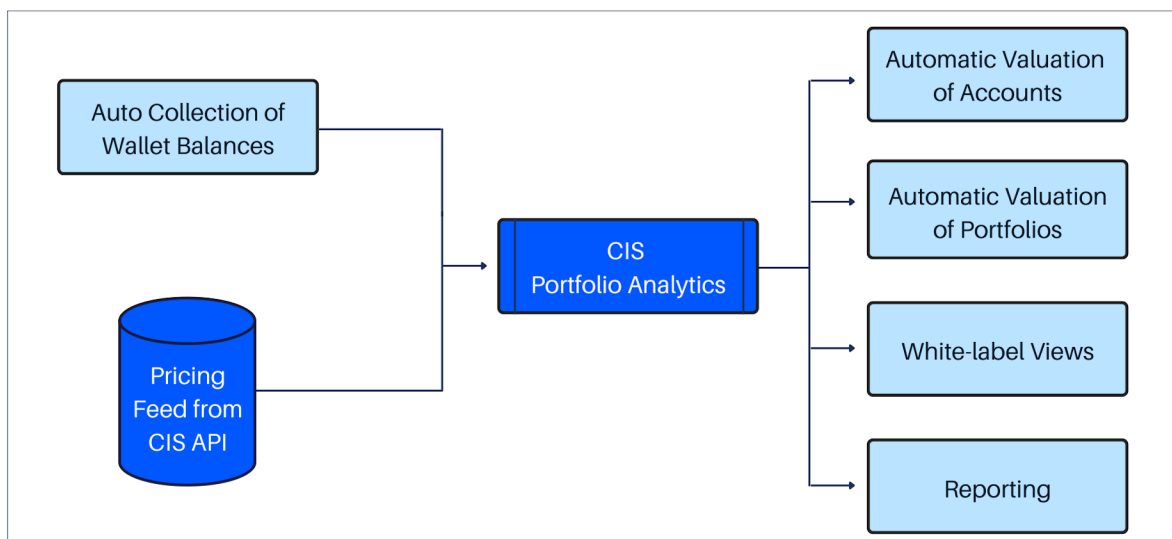


Figure 2: Ideal tracking and reporting process



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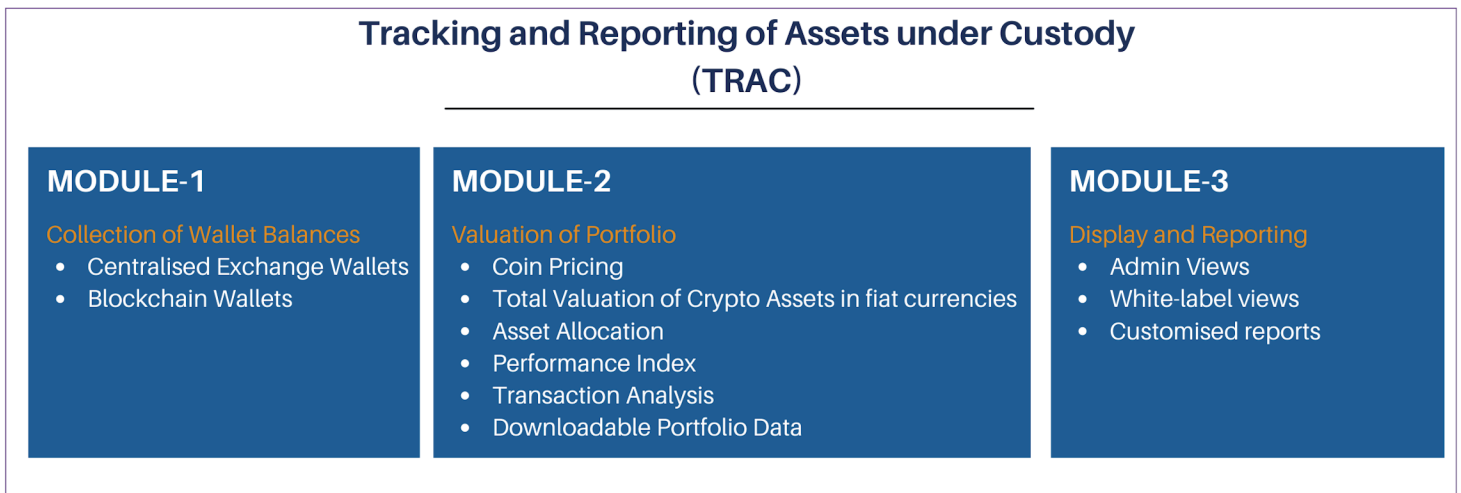


Figure 3: Current CryptoIndexSeries services vs the required modules

In our proposed solution, we offer three main modules as shown in Figure-3.

The first module involves collection of transactions from Centralised Exchanges as well as Blockchains. We retrieve buy, sell, withdrawal and deposit transactions and store in a processable format. Alternatively, it is also possible to upload the pre-retrieved transaction file.

The custodian may store the wallet addresses / API Keys in our Cloud servers or in a dedicated tenant. Either way, **CryptoIndexSeries™ (CIS)** does not have access to the information of the custodian partner’s customers.

The second module utilises the **CIS Portfolio Analytics Engine** which processes the transactions and generates meaningful insights for both our Custodian partners and their customers. Some of the analytics provided on an account / portfolio / customer basis include, but not limited to:

- Valuation across 24 fiat currencies
- Asset Allocation
- Performance index
- Transaction Analysis
- Realised / Potential profit & loss
- Sector Classification

In valuing the accounts and portfolios, we utilise the pricing data from our very own CIS Digital Asset Data API. This API collects pricing data from 30+ crypto exchanges and calculates a time-based volume-weighted fair market price for each crypto asset.

In addition to the analytics currently provided, other descriptive, diagnostics and predictive analysis types are being implemented to enrichen the set of results and to support the decision-making process for trading.

The third module provides an admin view for the internal use of our Custodian partners as well as white-label views for the use of their customers. The admin views allow the custodian to have a consolidated, holistic view of the accounts and customers they hold whilst the white-label views for customers provide account/portfolio views specific to customers only. In this module, we are also able to provide customised reporting based on the needs of our partners such as total asset allocation, valuation of the full accounts, customer sets based on the holdings / trading habits and so on.



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BENEFITS

The Business Case proposed in this report: 'Tracking and Reporting of Assets under Custody' (TRAC) would provide the following benefits to the Custody Providers and their partners:

- Transactions from partners' wallets are collected automatically
- The partners' accounts & portfolios are valued in the desired currency(ies).
- The balance and asset allocation of each partner is reported without any manual work.
- The historical performance of Portfolios (collection of wallet accounts) is calculated for each Partner with no manual work.

Most importantly, the Custody provider does not have to acquire any knowledge or hire qualified talent in a very specific area for all the automation work listed below:

- Collection of transactions from different type of wallets on different blockchains
- Processing of millions of transactions to generate current and historical performance of wallets
- Valuation of an account / portfolio even when there are assets not trading in the desired currency.

All these will save cost, time and money to Custodian Providers, quicken the idea-to-market delivery time and add value to the current offerings in terms of differentiating them from others in the market.

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