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# Kaiko Canton Data Application for Broadridge DLR

High-Level Functional Specifications

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## 1 Introduction

This document describes the high-level functional specifications for the planned Kaiko Canton Data Application for Broadridge DLR. Leveraging on DLR's existing work, the Kaiko Data Applications provide a framework for financial data distribution, connecting data producers with consumers through a standardized interface. Data Producers maintain control over data usage within a contractual framework matching capital markets' best practices. Data transfers occur on Canton and via APIs to scale the data distribution while ensuring the possibility of acting on-chain on the data.

The Kaiko Canton Data Application for Broadridge DLR will enable the consumption of Broadridge DLR data on the Canton Network and its distribution to The Tie and RWA.xyz through API.

## 2 Data Model

The solution will process Broadridge DLR repo data. Broadridge anonymizes and aggregates the data before transferring it to Kaiko.

The data is updated daily on a [tbd: business days under XXX Business Day Calendar/calendar days]. Publications occur at a predetermined cutoff time, e.g., 6 PM America/New York.

# 3 Functional Model

## 3.1 Data Distribution

The data transfers between Kaiko and Data Consumers, namely The Tie and RWA.xyz, will be done through REST API.

## 3.2 Data Provision Models

Kaiko data applications will be based on the functional model developed by DRW. In this model, data can be accessed in two ways: within the Non-Observer / Aggregation Model or the Observer Model. The difference essentially lies in the degree to which the Data Application can access data on Canton.

Table 1: Data Provision Models Comparison

| **Non-Observer/Aggregation Model** | **Observer Model** |
|---|---|
| Providers filter and aggregate data before transmission | Providers grant observers access to smart contracts |
| Enhanced privacy with limited exposure to critical contracts | Full and direct visibility into smart contracts for authorized parties |
| Customizable data views for consumers | Simplified data collection through direct contract observation |
| Providers have more control at the cost of additional development | Reduced implementation complexity for the Data Provider |
| | Broader visibility into contract data can raise privacy concerns |

For the data transfer between Broadridge and Kaiko, we will use the Non-Observer model, allowing for anonymization, pre-aggregation, and enrichment before distribution.

# 4 Data Flows

Information flow between key participants:

Table 2: Participant Roles and Responsibilities

| **Participant** | **Responsibilities** |
|---|---|
| **Data Producer:** Broadridge | • Generates repo activity data<br>• Publishes anonymized, pre-aggregated data on schedule<br>• Publication is done on Canton 3.x<br>• Maintains data quality and consistency |

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Table 2 – *Continued from previous page*

| Participant | Responsibilities |
|---|---|
| **Data Application:** Kaiko | • Retrieves data from Canton 3.x<br>• Processes and standardizes data formats<br>• Stores data [tbd if any]<br>• Provides secure API access to data consumers, giving them access to authorized data<br>• Manages authentication and access controls |
| **Data Consumer:** TheTie/RWA | • Accesses data through Kaiko's standardized API interfaces<br>• Are responsible for utilizing information for downstream applications in accordance with the data license |

## 5 Payment Flows

Transactions are denominated and executed in Canton Coin for transparency and efficiency.

Table 3: Payment Flow Structure

| Payment Direction | Description |
|---|---|
| The Tie and RWA.xyz → Kaiko | Use Canton Coin to pay Kaiko for data distribution services |
| Kaiko → Broadridge | Uses Canton Coin to pay Broadridge for data access |