**Transfer Agent- Reference Manual**

**Introduction**

The purpose of this document is to describe all the different interactions between the Rialto ATS system and any new transfer agent whose securities will be traded in the Rialto ATS platform. Basically, when trading securities and dealing with different kind of shareholders, the ATS platform will have to be populated with enough data to retrieve certain specific information from the transfer agent environments as well as provide to the transfer agent certain points of access so that it can also trigger certain specific use cases that will allow any given shareholder to start interacting with the Rialto platform.

It is beyond the limits of this documents to provide technical details about these interfaces. The goal is to provide a functional reference guide to all the different functionalities that the ATS implements and provides, and how Rialto pretends to interact with the transfer agent in order to implement those functionalities.

**Points of contact**

At first sight, the transfer agent interaction might seem limited to just moving shares from one sub-ledger to the other. That is actually one of the main goals of a blockhain, to have a secure, fast and decentralized tool to store information.

However, the ATS platform was thought to give the transfer agent a much more central role in in the secondary market environment. This implies that the transfer agent will be

* Onboarding
  + The central point of management of a company shareholders
  + The responsible for triggering the onboarding of a new shareholder in the ATS platform
* Portfolio Management
  + Responsible of providing all the information about the constituents of a shareholder portfolio
* Trading
  + Responsible of providing all the validation methods to safely allow an order get to the exchange.
* Settlement
  + Responsible of providing a single point of contact to request a transfer of shares from one shareholder to the other and confirm that the shares have been transferred

Following we will provide a brief description of all the features, parameters and behavior expected in each one of the points of contact specified above.

**Onboarding**

A shareholder onboarding might be one of the most complex interaction between ***Rialto ATS*** and the transfer agent. As we mentioned before the idea is for the transfer agent to have a central role in the shareholder management. It will be through the transfer agent that every shareholder will manage his portfolio, be notified of important events and even trade the shares in a fully decentralized manner.

However, the shareholder is expected to be given the opportunity to trade in ***Rialto ATS***. The way this is carried out, is under the transfer agent decision, but as it is known, onboarding a new shareholder in a different financial institution requires a lot of information gathering which will have to be provided to ***Rialto***.

At the time of writing this document, **the following is a list of all the fields that will have to be provided to *Rialto* to trigger the onboarding process**:

Personal information:

|  |
| --- |
| Title |
| First Name |
| Middle Name |
| Last Name |
| Suffix |
| Gender |
| Date Of Birth |
| Nationality |
| TX ID/SSN Number |
| Email |

Contact:

|  |
| --- |
| Street Address 1 |
| Street Address 2 |
| Country |
| Zip Code |
| City |
| State |
| Country Code |
| Phone number |

Employer:

|  |
| --- |
| Employer |
| Job Title |
| Salary Range |

Financial Situation:

|  |
| --- |
| Net Worth |
| Investment Experience |
| Accredited Investor |

Documents

|  |
| --- |
| ***Country Specific ID*** |
| ***Proof of Residence*** |
| ***Additional documents*** |

The main concepts that will have to be analyzed by the time of building this onboarding service by Rialto will consist of

* Technology to be used (REST service strongly suggested)
* Encryption mechanisms to be used (if any)
* Mapping mechanism: Specify the key fields for every shareholder, company, security, etc. in the transfer agent and how these keys will be used to reference every entity throughout the application
* Access methodology to the different documents necessary in the onboarding process
* Endpoints to inform the onboarding status

After triggering the onboarding process in the transfer agent, the shareholder will be redirected to a new UI where he will be able to see all of his personal information, provide the missing fields, and track the onboarding process.

As can be seen, the onboarding process is the most complex interaction between the transfer agent and Rialto, not only because the onboarding will be triggered form the transfer agent, but also because it will require a lot of specific technical and functional decisions and bi directional communication.

**Portfolio Management**

It is one of the main responsibilities of the ATS to allow the investor to have a clear and accurate picture of the market conditions at the time of entering a new order. This not only involves providing real time market data information but also a representation of the status of his portfolio.

In this context, a portfolio synchronization will be implemented at 2 specific points in time:

* Every time a new shareholder is onboarded in the ATS platform
* Every time a shareholder logs in in the ATS

**So the transfer agent should provide a service/endpoint to download a shareholder’s portfolio constituents.**

**Trading**

Trading involves the process of accepting orders to the exchange as much as matching buyers and sellers. In this context, there is not a mandatory participation of the transfer agent but providing specific critical information, will make selling shares a much safer and comfortable experience.

In this context, whenever selling a share, Rialto will try to run offline as much as online validations if possible. This is the point where every transfer agent decides which are the most suitable endpoints to expose.

Basically, it is suggested that the transfer agents implement endpoints for the following actions

* Validate that the order notional (*quantity x price*) is a safe amount to be traded based in the shareholder portfolio conditions
* Expose an endpoint to notify the transfer agent to put on hold or refrain to transferring the shares to be sold

The communication between the ATS and the transfer agent before sending a sell or buy order to the exchange is fully decoupled from the rest of the functionality, so implementing the previously mentioned changes is not mandatory. **However, is strongly desirable that the transfer agent provides a service/endpoint to validate that there are enough shares before sending a sell order and another service/endpoint that would allow Rialto to put on hold those shares. In case the previous order is later cancelled, the transfer agent should also provide a service/endpoint to release the shares previously put on hold.**

**Settlement**

At specific points during the day, trading will be halted and a matching process will take place. As a result of this process trades will be created between buyers and sellers and these trades will be available to initiate the *Settlement process*.

Basically the *Settlement process* will consist of a multi-step workflow where money will be moved from the buyer to the seller to finally move shares from the seller to the buyer. The process will include different special scenarios from default management to an ad-hoc onboarding of buyer to a new transfer agent.

However, by the time of writing this document, the only **service/endpoint that should be provided by a transfer agent is a service that will allow Rialto to request transferring shares between two different shareholders.** The ***Rialto Settlement process*** is prepared to run synchronous as much as asynchronous shares transfers. This means that the shares transfer request could either be made

* One step process:
  + The shares are transferred immediately after the transfer is requested
  + Only one service is needed
* Two step process
  + The shares transfer request is made.
  + Later the transfer agent is pinged to confirm that the shares have been transferred
  + Two services will be needed

Either way, it will be the ATS the one responsible of invoking the transfer agents service and it’s not expected to be needed any kind of bi directional communication between the transfer agent and Rialto, but this could be eventually considered in case it was needed.