Clearstream Funds Services

Vestima Service Description

Vestima - Clearstream Funds Services - Vestima Service Description

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Foreword

Vestima, the investment fund order routing service from CFCL, simplifies all aspects of investment funds trading. Vestima is linked to CBL's settlement and asset services. Please refer to CBL's Vestima Service Description for further information on CBL services acting as CFCL sub-custodian.

Contact details

For further information or if you have specific questions regarding the Vestima system and/or communications with CFCL, you can contact Client Services in Luxembourg as follows:

Telephone: +352-243-38110

+352-243-32833 +352-243-32555

Connectivity Support for access/configuration issues Vestima Client Services for business queries Vestima Product information:

Email <u>csvestima@clearstream.com</u> Vestima Client Services for business queries

connectlux@clearstream.com Connectivity Support

Website www.clearstream.com/ Clearstream website

If you need assistance with Vestima, it would be helpful if you have the following information to hand before contacting CFCL:

- Your organisation name and Vestima Identity (ID);
- Your name, telephone and fax numbers and your email address;
- Your connection type: via Xact Web Portal or directly through the public internet;
- The type and version of your operating system and web browser software;
- Details of the inquiry (please have full details available);
- If you receive an error message, full details of the error, with any error message number.

Please note that - as is normal practice within financial organisations - CFCL has implemented telephone line recording to ensure that the interests of CFCL and of its clients are protected against misunderstandings or miscommunications.

Areas subject to telephone line recording include Client Services The recorded lines are the subject of an ongoing formal maintenance and quality control programme to ensure their continued effective and appropriate deployment and operation.

Introduction

Account opening in CBL

Once accounts are opened, Order Issuers must fill in the Vestima service application form (SAF), where they can choose if they are interested in mutual funds-only (only Vestima STP order routing) or if they are also interested in alternative funds and want to opt-out for "One Account" service, allowing to connect one single account to both Vestima and Vestima PRIME simultaneously.

Participants

When subscribing to Vestima, clients are asked to create Order Issuer participant(s) and portfolio(s), that will define the role and services they subscribed to and which are linked to order routing.

The types of participants that interact with Vestima may include:

- Order Issuer (OI): An organisation that buys and sells shares directly from/to the fund or its agent, for its own account or on behalf of other investors.
- Order Receiver (OR): An organisation that receives orders from an OI through Vestima. There are
 two types: the Order Handling Agent (OHA) for the primary market and the Authorised
 Participant (AP) for the Secondary Market.
- Order Handling Agent (OHA): An agent appointed to process fund orders.
- Master Participant (MP): A Vestima participant that can act on behalf of other participants.
- Authorised Participant (AP): Entity designated by the ETF issuer to supply the ETF on the secondary market to investors. An AP can also be known as a Broker or Market maker.

Vestima has been developed to simplify and standardise all aspects of investment funds trading.

Orders from the order issuer (OI) are transmitted through Vestima, bringing the maximum range of funds within easy reach of many types of clients and investors. Orders are routed from the OI in real time.

Fund issuance and acceptance

Fund acceptance

CFCL accepts investment funds - collective investment schemes that are "unitised" as a security - for order routing. A fund eligibility in CBL (as CFCL's sub-custodian) is a pre-requisite for a Vestima eligibility assessment in CFCL.

CFCL allows Order issuers (OI) clients to request the setup of any new fund which they want to trade in, and which is not available yet in the database. The setup of a new fund can take up several business days according to the type of fund and the related trading parties which need to be parametrised.

The Clearstream eligibility assessment on investment fund shares shall be based on Clearstream governing documents and policies (subject to change at Clearstream's discretion).

Typically, eligibility assessment criteria are based on fungibility, transferability and operational supportability of fund shares with the following provisions:

- Clients remain responsible in complying with Terms and Conditions of prospectus.
- If required by Terms and Conditions, CBL can restrict transferability of fund shares within CBL which implies the involvement of the Transfer Agent to control transfers between clients.
- Acceptance of investment fund shares in Clearstream is subject to the receipt of the final Fund prospectus or the last available draft prospectus if the ISIN is included in the prospectus.

Depending on the results of fund eligibility assessment Clearstream will decide if the investment funds in question are eligible for order routing service. The Fund Processing Group will define the defaulted order routing venue, namely "Vestima", "VestimaPRIME", "No Order Routing" (only custody and settlement are supported in CBL), or "CBL ineligible" (the ISIN is non-qualified in CBL).

Fund setup at OI request

OI clients can proactively contact client support for a new fund setup. This service allows clients to request the setup of any new fund that they want to trade on and which is not available yet in the database. The setup of a new fund can take several business days according to the type of fund and the related trading parties which need to be parametrized. CFCL can provide a large coverage on different funds (even if 100% coverage is not possible). The fund setup request can be complemented by the Trading Availability Check being a tool imbedded on Vestima and providing Vestima OIs a better visibility on which funds are ready for them to trade on.

Published Fund List

The Published Fund List is CFCL's service providing clients with automated reporting on investment funds reference data. It contains information on all investment funds eligible and active in CFCL.

Some investment funds may be eligible for CBL's settlement and custody service and not available for order routing on Vestima or Vestima PRIME (as per defaulted Fund Processing Group).

The monthly Published Fund List can be found under Supported Funds together with its User Guide for more information. A daily version of the Published Fund List is available on the Vestima web browser or via Xact File Transfer.

Order routing



As an introductory note:

- Order Issuers (OI) can send orders using several connectivity channels: Swift (ISO15022 and ISO20022), Web Portals such as Xact GUI (Vestima UI via Xact or VestimaPRIME GUI via Xact), Xact File Transfers and, FIX Connectivity. CFCL will then automatically send orders to Order Handling Agents (OHA) in their preferred connectivity media (preferably via Swift or Xact File Transfer).
- Most processes are common for both funds on the Primary Market and ETFs on the Secondary Market. Order Handling Agents (OHA) and Authorised Participants (AP) are accordingly considered collectively as Order Receivers (OR). In this Vestima Service Description document, explicit mention of OHA or AP will be made only in the context of specific processes.
- The OI and OR do not communicate directly with each other but via the Vestima automated system. Orders are processed continuously.
- Integration with the settlement and custody services of CBL provides secure straight- through processing (STP) from order input through to final settlement, if required.
- Vestima supports orders on the:
 - Primary Market: On the Primary Market, the OI can buy and sell fund shares with subscription and redemption orders. Participants can also switch funds on the Primary Market, combining a set of orders, one to sell (redemption leg) and one to purchase (subscription leg) fund share classes operated by one and the same OHA.
 - Secondary Market (on Exchange Traded Funds): On the Secondary Market for ETFs, the OI can buy and sell fund shares in the same way as for a Primary Market but cannot switch between ETF fund shares.

The following chapters will provide more detailed information on the afore mentioned.

Vestima or VestimaPRIME order routing

Depending on several characteristics of the fund, CFCL will determine the most suitable order routing platform: Vestima or VestimaPRIME

Funds requiring some manual intervention during order processing (CFCL) or for the custody/settlement (CBL) will most likely be setup with the defaulted Fund Processing Group = VestimaPRIME.

CFCL provides OIs with manual order routing services (handled by experienced operational teams) for some complex mutual funds and alternative investment funds.

Manual interventions of CFCL include:

- Fill in specific forms and legal documents required by OHAs for initial and/or subsequent orders;
- Manage and match order data in Swift, fax or email format;
- Route orders received from OIs to OHAs;
- Send intermediary status/confirmation to Ols;
- Manually handle and stop orders where required.

Order input, validation and enrichment

The OI enters an order instruction; if it is accepted by Vestima, an order is created with a unique order reference. If an order is invalid, the OI must place another order with correct data.

Vestima enriches the order with default values for any optional data that the OI has not provided. The requested NAV currency and the settlement currency are examples of such data. Vestima will further populate any data relating to trading parties that may be required by the relevant fund company. Trading party details are used by some fund companies to identify the underlying investor, distributor and/or other reference to a commercial agreement with the fund company. The OI is responsible for contacting Vestima Client Services for all trading parties reference data maintenance requirements.

Note: Before placing a first order in a particular investment fund, the OI must use the Trading Availability Check available via the Vestima web browser or contact Vestima Client Services (see "Contact details" on page i) to ensure the fund's availability and successful order processing. When new trading party details are required, the OI must give notice to Vestima Client Services at least five (5) days before having the new trading party details available for order enrichment. If the OI places an order in a particular investment fund before Vestima Client Services have confirmed that the relevant and requested setup is ready, the OI assumes full responsibility for any failure in processing the order. Several safety checks are available in Vestima to ensure that the details on orders that you fill in are correct.

Provision and Trading Limits Check

For redemptions and switch (redemption leg) orders instructed on portfolios that use a CBL account for settlement, Vestima checks whether there are enough funds to fulfil the order. Vestima's default behaviour for provision checking applies as follows for Primary Market orders and ETFs (Secondary Market). If the provision check is successful, the order is immediately made available to the OR. If the provision check fails, the order is rejected.

If the OI has subscribed to the Trading Limits Service, then, if appropriate, upon successful provision checking, the system checks whether a specified cash amount has been exceeded, by a single order and/or by the sum of multiple orders within a defined period. The Trading Limit Service is applicable to all order types with the defaulted Fund Processing Group = "Vestima" and markets and is independent of the place of settlement.

Note: The OI can force through an order that has failed the Trading Limits check; otherwise, the order is not forwarded to the OR.

Order forwarding and cancellation/amendment requests

When an order is ready, Vestima forwards the order in the media agreed with the OR (such as the web browser interface, Swift ISO 20022, Swift ISO 15022, etc.). A created order requires no further intervention by the OI except, as necessary, to request cancellation of the order or to take any appropriate action if the order is rejected by the OR. Users can query the Vestima system to make status checks and to see how an order is progressing.

Order cancellation requests can be made on both Vestima and VestimaPRIME. An OI can cancel an order as long as the order has not yet been forwarded to the OR. Once the order has reached the OR, cancellation is subject to OR's approval.

Order amendment requests are only viable for manually routed funds on VestimaPRIME. An OI can amend an order as long as the order has not yet been confirmed by the OR, but amendments are always subject to OR's approval.

Sporadic Agent Code Service

The Sporadic Agent Code Service aims to support OIs in bringing free-format text information to the attention of those ORs that do not consider free-format text transmitted in automated STP media. This service is specific to Vestima funds only.

When enabled, orders that include a narrative will be forwarded to the relevant OR without validation. All other orders without narrative will be forwarded via the normal STP channel of the OR. The OI and the OR remain responsible for the content of the information exchanged between them.

The service is applied to orders that include a narrative in the designated fields:

- :70E::TPR0 in ISO 15022.
- OrdrWvrDtls/InfVal in ISO 20022.
- "External narrative" in the web browser interface of Vestima.

This service is subject to a feasibility assessment by CFCL on a case-by-case basis.

Order Confirmation, Rejection, Confirmation Cancellation and Replacement

When an order is received by the OR, the OR has the option to acknowledge the receipt and booking of an order. The status of the order changes to acknowledged.

The OR may reject an order, also after having previously acknowledged it. The status of the order changes to rejected. **Note:** It is possible with Vestima to reject an order after it has been acknowledged.

The OR can cancel a previously sent confirmation. If the OR wants to replace a previously sent confirmation, the confirmation must first be cancelled and then the OR can send a new confirmation to Vestima.

Order Monitoring

Clients have full visibility and controls on their orders activity via Vestima as further described in the following sub-sections:

Order Book

CFCL provides clients with an overview of their order history book, listing all the orders placed on the market and a real-time reporting of their status. Reporting is available in both Vestima and Vestima PRIME Portal.

Order Controls

CFCL provides provision check and recheck services to clients in order to verify whether OIs have enough securities to fulfil a redemption. Relevant authorizations include User Authorization (user access can be restricted), OI order Authorization (OIs can perform 4-eyes, rekey or no controls at all) and OI order Validation (CFCL's verification of order data). In additional, Vestima enables Trading Limits check on a defined period.

Reporting

CFCL provides a full suite of reports to clients such as statement of orders, in different connectivity media (for example, Xact File Transfer, via Vestima or Vestima Prime GUI).

Exchange Traded Funds

Exchange traded funds (ETFs) have gained popularity amongst investors as this fund type highly fulfils investor objectives in terms of liquidity, low fees, transparency and portfolio diversification. CFCL offers innovative and flexible solutions for the ETF market which increase process efficiencies benefiting the issuers and investors alike. In addition to offering a full suite of investment fund services providing order routing, settlement and asset servicing, Vestima also offers ETF services on an OTC/infrastructure basis by enabling investors to trade ETFs directly with the appointed AP/market makers. The fully automated post-trade service covering centralised order routing to settlement and asset servicing ensures ETFs settle in exactly the same way as traditional investment funds. ETFs can be bought or sold on Vestima at no additional cost and with no change to existing operational processes and connectivity channels.

Connectivity

Vestima provides an entry and reception point for domestic, international and offshore funds, allowing orders and Order Confirmations to be submitted, validated and routed to the relevant recipient. Orders can be submitted using the following authenticated communication channels:

- Vestima and VestimaPRIME via the Xact Web Portal.
- Swift ISO 15022 and ISO 20022.
- FIX (Order Issuer only connectivity service).

In addition, orders can be entered in a bulk using Xact File Transfer, the file transfer solution for bidirectional data transfer. It has been designed for secure straight-through processing that can support high-speed and large instruction volumes.

Xact File Transfer can be used as well for rapid distribution of all reports that are available in Swift ISO 15022 format, extensible mark-up language (XML), MS Excel (XLS) and portable document (PDF) formats.

For all connectivity involving Swift CFCL Vestima follows Swift MyStandards guidelines, that can be found here: MyStandards | Swift - The global provider of secure financial messaging services, as well as SMPG guidelines.

Access to Vestima on Sunday

Vestima is available in read/write mode on Sundays. Not all the functionalities that Vestima offers to clients on standard workdays will be available.

The details of the limited functionalities are as follows:

- Vestima is available for limited access on Sundays (except during system maintenance), where placed orders will only be forwarded to the OHA on the next Business Day.
- The provision check might not function regularly on Sundays and the OI needs to ensure that there are enough funds to fulfil the order.
- For orders placed on Sundays in the Vestima system, they will be reflected as "Forwarded", "Forwarded by Fax" or "Available to OHA" though the orders may be forwarded on the next Business Day.
- The orders that are placed on Sundays via the Vestima system might be processed on the next Business Day in a random sequence. The OI must take note that if cancellation requests are placed on Sundays as well, then the cancellation requests might reach the OHA before the placed orders.
- Reports in Vestima will be generated according to the existing schedule. No new reports will be generated.

VestimaPRIME specifics

Vestima PRIME provides services for primary market subscription and redemption orders in complex and alternative investment funds. Many of the processes and specifics described for Vestima above apply equally to Vestima PRIME. The following section describes significant deviations

Order input

If the OI requests to redeem a specific trade lot, the original trade date and trade reference must be specified in the order. When no specification is made, the redemption will be processed as per the default defined in the investment fund's prospectus, normally on a first in first out (FIFO) basis.

If the OI has made special arrangements with the fund company for the processing of the order by the OHA, such as a postponed trade date or deviation from the minimum/maximum size of an order, the OI must specify such arrangements in the Notes section of the order details in VestimaPRIME.

All trades where an OI has made special requests, such as a specific trade lot, postponed trade date and deviation of order size, will be processed and forwarded to the OHA with the relevant special request on a "best efforts" basis.

Partial redemption advice

The booked trade activity may occur more than once to allow the OHA to notify the OI of execution details of partial redemptions, such as the percentage of the redemption proceeds paid and the estimated NAV.

Access to VestimaPRIME

VestimaPRIME is not available between Saturday 16:00 GMT and Sunday 18:00 GMT.

Contact

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