



Investment Fund Processing Guidelines

Order and Settlement of Investment Funds in Luxembourg

A Working Document

By the ALFI TA Forum Steering Committee

Fund Processing Standardisation Working Group

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1 Introduction

1.1 European Fund Processing Standardisation

Fund Processing Standardisation Group¹ "FPSG" in a nutshell

In 2003, efama established the Fund Processing Standardisation Group "FPSG" with the aim of improving efficiency in the cross-border processing of fund units and shares across Europe. The FPSG consists of key expert practitioners representing European investment companies, custodians, transfer agents, fund processing hubs and existing standard setting organizations. The FPSG is organised in two distinct working groups, one focusing on Fund Data & Fund Transaction Best Practices and the other on Messaging Standards (an enlarged SWIFT XML standards working group).

To progress towards more efficient funds processing, the FPSG published its first two reports in February 2005. One is a set of 28 recommendations for transaction best practices dealing with the specific aspects of order processing and settlement. These recommendations are presented in a paper entitled "Standardisation of Funds Processing in Europe: Order and Settlement". Concomitantly, the FPSG proposes the adoption of a single fully harmonized pan-European document – the Fund Processing Passport (FPP) – to summarize, at class level, the essential information on open-end investment funds that should be provided by the fund provider in order for trading to take place. The FPSG strongly believes that the use of the FPP by all industry players would increase efficiency in the fund industry, especially in cross-border situations, by enhancing the exchange of standardized information on investment funds on a Europe-wide basis.

Both reports have been endorsed by the FPSG European representatives with the Luxembourg counterparts following suit by gaining the support and commitment of the ALFI TA Forum Steering Committee, where a dedicated FPSG Early Adopters Working Group has been in place since 2004.

1.2 Luxembourg Fund Processing Standardisation

Luxembourg: a key driver and leader by example for EU-wide implementation of efama FPSG recommendations

Luxembourg embraced efama's FPSG endeavours at the onset in 2003 through the Luxembourg TA Forum community. Mainly driven by the results of the Luxembourg Transfer Agency Services Survey 2003, which clearly confirmed that, there still was no major shift away from fax and paper-based transaction processing in Luxembourg. Most importantly, that although the ever-growing market need to simplify the transaction process of the TA and the distributor, and the anticipated widespread use of electronic media had been addressed by the advent of the industry facilitators, the integration of STP, was and is still in between being a myth and becoming a reality.

Although lessons have been learned so far, indication is still to this day, that there is still an ever-increasing need for automation and harmonisation in the fund processing cycle across Europe and beyond. Efama strongly believes that these FPSG recommendations, if embraced by the industry, will serve to converge towards industry-wide standards, thereby removing an important barrier to the development of harmonized processing of investment fund transactions in Europe. All these elements therefore plead in favour of Luxembourg, as the key driver and leader by example to implement these recommendations, especially in its role as a leading global fund distribution platform.

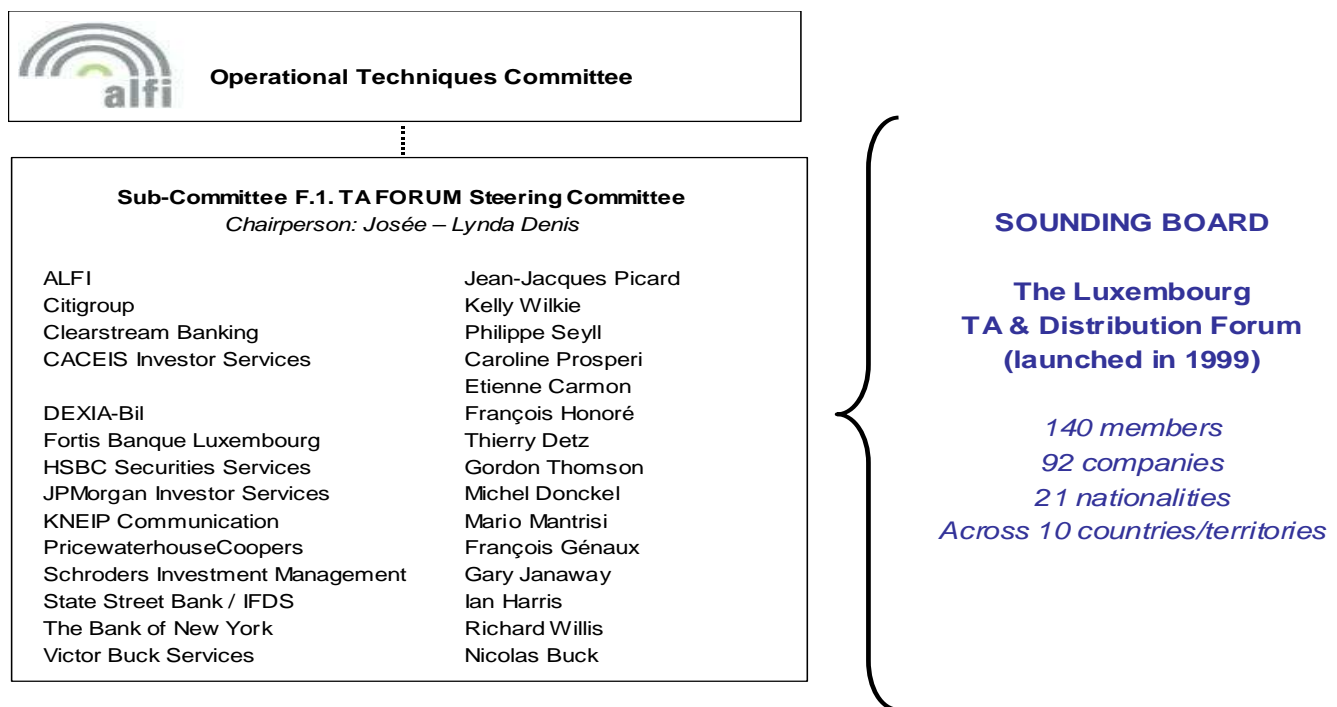
¹ Source: www.efama.org

Since the launch of these initial efama FPSG recommendations, the TASC and the Luxembourg TA Forum community have been at the forefront in embracing these. An FPSG tool kit has been in place since October 2005.

The case for introducing fund processing standardisation is obviously grand, but with the ongoing commitment of ALFI and key Luxembourg market leaders to invest in rolling out FPSG recommendations, this can only bear fruit to the Luxembourg fund industry's growth going forward, most importantly, its leadership in proposing a standard operating model for global fund distribution.

This document was prepared by the members of the ALFI TA Forum Steering Committee "TASC" (a sub-committee of the ALFI Operational Techniques Committee) and its dedicated *Fund Processing Standardisation Working Group*.

The following market participants are committed members of the ALFI TASC who drive endeavours to support the interests of the Luxembourg fund industry's operations players:



The document is intended for:

- Distributors of unit certificates, e.g. to underlying investors
- Fund Administration service providers, specifically custodians and transfer agents
- Fund-hubs and any other fund distribution intermediaries

It is intended to serve as a working basis for developing a maximum degree of *fund processing standardisation* in the international and national fund business because the European fund market is still characterized by many different fragmented infrastructures, a great variety of tax models, different regulatory and supervisory authorities and different languages. Efficient communication with business associates requires an adequate degree of standardized processes.

The following sections describe the processes generally applied in the Luxembourg market. They are the typically applied in the distribution and settlement of funds units of Luxembourg-domiciled funds and international investments funds maintained in Luxembourg. Appendix 10.1 and 10.2 describe the various elements of the ISO 15022 (“fund template” version) and ISO 20022 standards typically utilised in Luxembourg.

These comments reflect the market practice for the funds business in Luxembourg. They are a fair representation of the core focus of the work of the ALFI TASC as well as the ALMUS (*“Association Luxembourgeoise des Membres et Utilisateurs de S.W.I.F.T.”*), the Luxembourg association of S.W.I.F.T. members and users.

This document may be reviewed from time to time to reflect updates in the Luxembourg and European best market practices in terms of fund processing standardisation initiatives.

2 Background

ISO 20022

In early 2000, S.W.I.F.T (*Society for Worldwide Interbank Financial Telecommunication*) was requested by several companies active in the investment funds’ business to jointly seek a common solution to standardize the practices for trading in investment funds. The focus was on fund distribution (specifically subscription and redemption of fund units). In the same year the Securities Maintenance Working Group (SMWG) extended the existing ISO 15022 message types for this purpose².

Since these standards covered only the most important and commonly used core functionalities it was agreed that the various processes be reviewed jointly with the representatives of the fund industry with a view to redefining these standards. These activities led to the ISO 20022 UNIFI message types for investment fund unit trading available since April 2004. It is intended that by 2006 new message types will be created to reflect additional functionalities and thus, incorporate a broader range of fund processes.

3 Objective and benefits

The main objective is to automate processes used in the cross-border distribution of investment funds, thus enabling usage of common communication protocol. The primary focus was to automate the interactions between various organizations although the same automation should be used within a single one. The focus is exclusively on external processes and not on the internal processes e.g. within an IMI/asset manager operation.

Benefits are to:

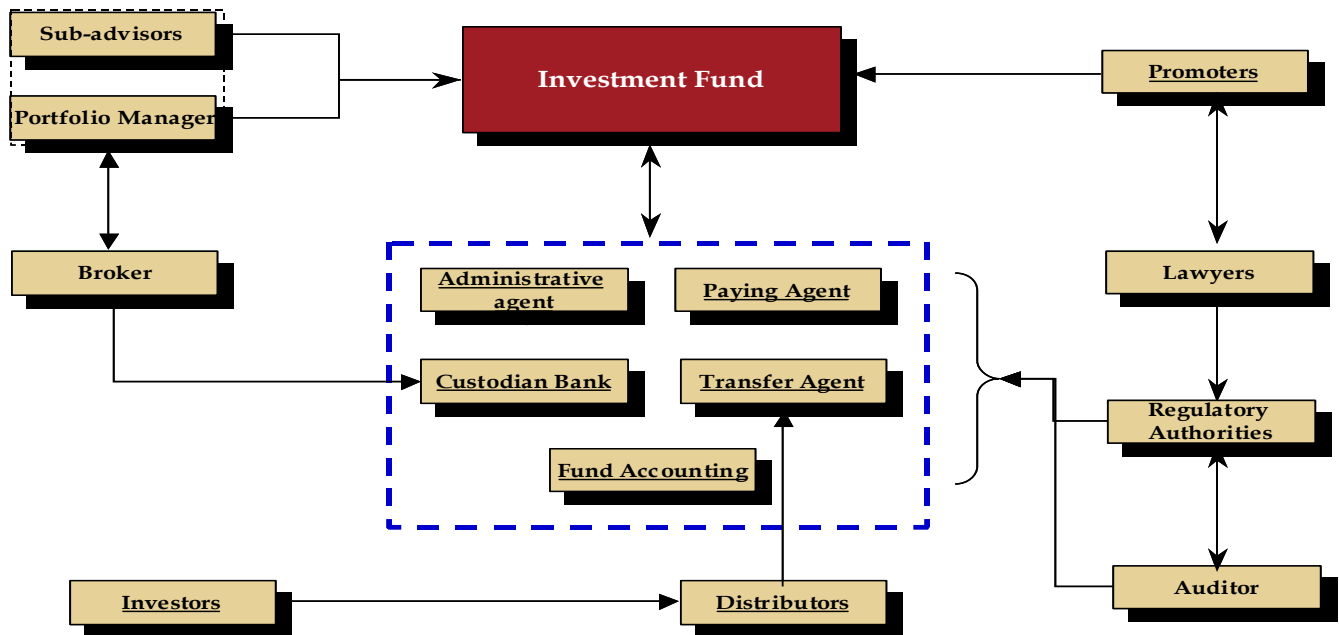
- Increase operational efficiency by avoidance of multiple entries of transaction data
- Simplify common operational processes
- Integrate a greater number of organizations involved in distribution of investments funds.
- Create standard data formats to allow existing systems to interact between each other.

² SWIFT Standard Release 2001 (“Fund Template”)

4 The Luxembourg fund processing landscape

4.1 The Investment Management Business Model

For the purpose of this reference document, we have focused mainly on the current context of the Luxembourg fund industry in terms of its investment management business model³, which is in line with a pan-European and global fund distribution operating model:



┌ ─ *Actors of the day to day work of the fund maintaining very close and regular relationships.*

The following section provides a description of the actors involved and their various functions according to current Luxembourg market practice.

4.2 Fund Administration Functions

The processes involving external interfaces are carried out by various "functions" within the Luxembourg standard market practice for each category of actor involved in the:

- Investment Fund/Investment Management Institution/fund provider** that launches the funds and in a number of cases selects the underlying securities
- Custodian** as the actor responsible for monitoring and safekeeping of a fund's assets
- Distributor**, i.e. the distribution channel through which fund units are provided
- Fund-hub** as intermediate (centralizer) and sub-custodian for unit certificate trading
- Central Securities Depository (CSD)** for the central custody of securities (communication exclusively via custodian)
- Central bank** as central payment institution in cases of cooperation with a CSD

³ Source: ALFI TASC – reference: *The Luxembourg Transfer Agency Services Survey 2003*

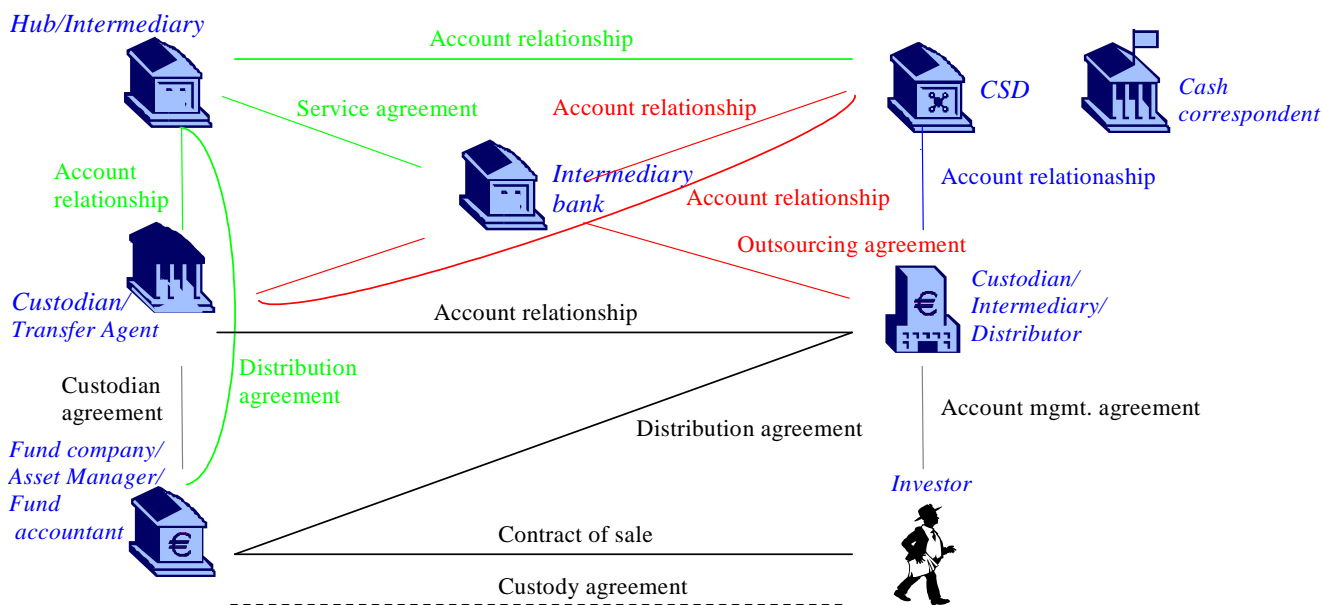
4.3 Description of the actors and their functions

Actor	Description of main function	Luxembourg Market Practice or as per IM business model
Regulator	The regulator is normally a state authority, which lays down the rules for the market participants.	Commission de Surveillance du Secteur Financier ("CSSF")
Investor	The party whose money is invested and who benefits from the performance of such investment. It can either be an individual or an institutional investor.	Final customer
The Management Company	The company that launches the fund, determines the investment strategy, appoints the service providers, and makes all major decisions for and on behalf of the fund. It is responsible for distribution and marketing of the fund.	The Investment Fund
Asset manager/Fund Manager	It executes the investment strategy, selects the securities of the portfolio in accordance with the fund objectives, as reflected in the fund prospectus. It places buy and sell orders for securities in accordance with the fund's net inflows and outflows.	The Investment Fund, the Portfolio Manager
Fund accountant	It records the fund's assets and liabilities, calculates the trading prices and the fund's net asset value (NAV); it can provide performance reports and tax information.	Fund Administration service provider
Custodian Bank	Safe keeps securities and manages cash for the final customer (here: distributor) or for the fund (here: custodian bank): For funds it delivers as "safekeeping client" the assets for specific permitted transactions only against authorized instructions. It maintains the fund's holdings, which constitute its assets. The custodian can appoint sub-custodians.	Fund Administration service provider
Registrar and Transfer agent	It is appointed by the fund company and keeps the investor registers. It keeps the records of investor securities accounts. These records represent the fund's liabilities. Its task is to update the fund accounts to reflect the daily unit sales and redemptions, switches, transfers and changes of registrations. It ensures prompt settlement of orders and is able to provide tax information to the investor and its intermediaries. It can calculate, receive and set off commissions. It prepares and sends order confirmations and the resulting cash account statements to the investor or its intermediary. It prepares the account statements (securities holdings and cash) for the investor and/or its intermediary and makes them available on a periodic or ad hoc basis. It responds to requests concerning securities account holdings and has a control function. It executes interest payments.	Fund Administration service provider
Distributor/ Intermediary	Deploy efforts to sell the funds units to investors. It can provide fund information to potential investors, accept orders on behalf of a fund and implement order transfer as well as flow of information between the fund and the investors and their intermediaries. It can be remunerated in the form of commissions paid by retrocession of the Funds managers or the investor commissions.	
Fund Platform	Kind of technical intermediary. It manages and centralizes orders coming from investors/distributors and re-route to TA. It can insure the settlement in addition	
CSD/ICSD	The Central Securities Depository (CSD) provides its members with an efficient and secure method for fast and safe settlement. It has processing capacities for payment, custodian, settlement and post-settlement functions for securities and information such as capital increase, dividend and interest payments. It holds and controls physical securities holdings as well as non-physical securities including fund units.	
Cash correspondent	A financial institution that makes or receives payments on behalf of a fund.	Paying Agent; Clearing Bank; Custodian

4.4 Generic investment fund processing model

The chart below illustrates the potential market participants and their relationships in respect of investment fund processing in Luxembourg. The various alternative business relationships are represented by different colours. The agents are shown in blue Italics.

Investment Fund Processing in Luxembourg: Market participants



4.5 Order and Settlement process maps

The following diagrams illustrate the information flows that are common in the various steps performed in Luxembourg-domiciled and/or foreign domiciled funds units/shares for a fund transaction.

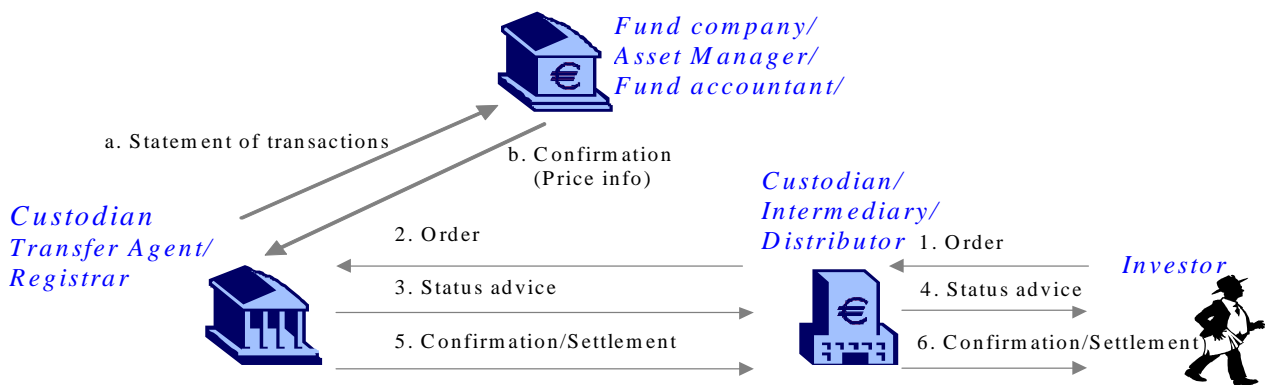
The diagrams are representative of a transaction being placed via various modes of order routing and settlement entities and facilities be they:

- 1) Via a single distributor/intermediary
- 2) Via a Fund hub or an international order routing platform
- 3) Settlement via an CSD/ICSD
- 4) Settlement via an order routing platform

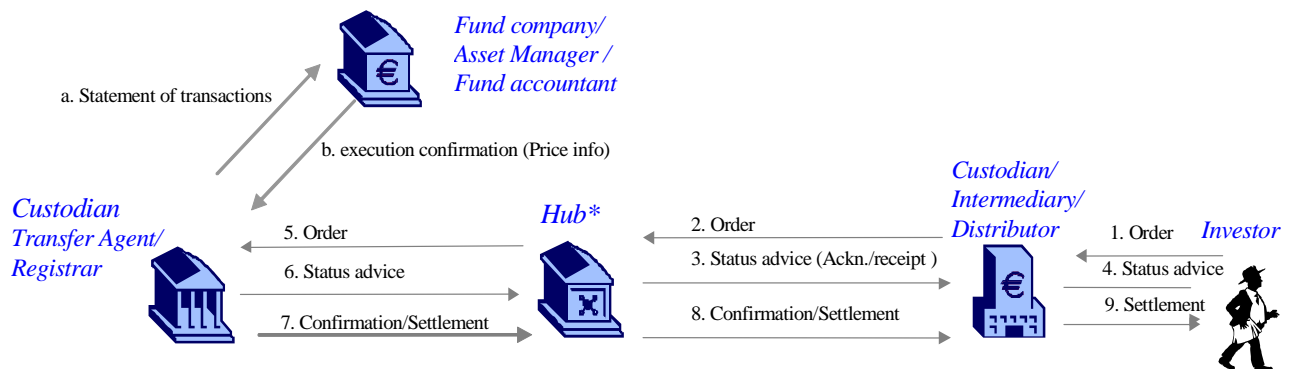
The information flows are represented as a diagram of the order and settlement process. A purchase/subscription order is described for each instance; however, one can also refer to the other types of fund transactions used in the trading of investment funds such as redemptions and switches.

The S.W.I.F.T. message types used for the various transactions are listed in Appendix 10.1 (current/old FIN message types) and 10.2 (new XML message types). Appendix 11.3 provides a comparative analysis between the “old” SWIFT messages formats (FIN message types) and “new” SWIFT message formats (XML message types).

4.5.1 Order/Settlement process via a single distributor/intermediary



4.5.2 Order/Settlement process via a Fund hub or an international order routing platform*



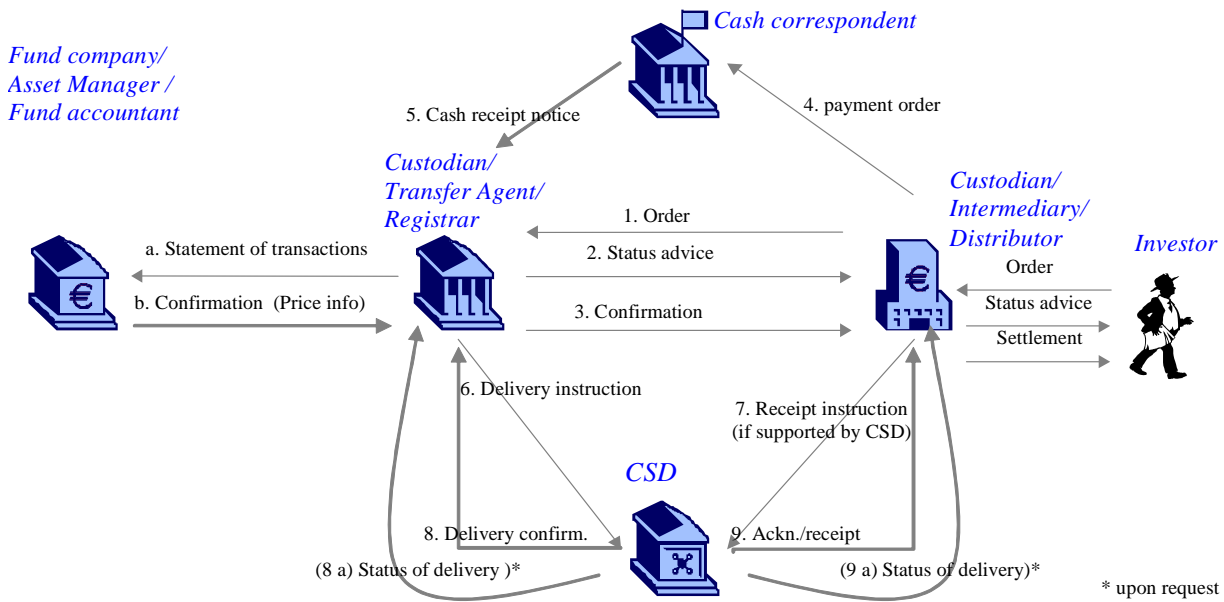
Distributor:

- A bank
- Can also be an IFA (in a S.W.I.F.T. CUG environment)

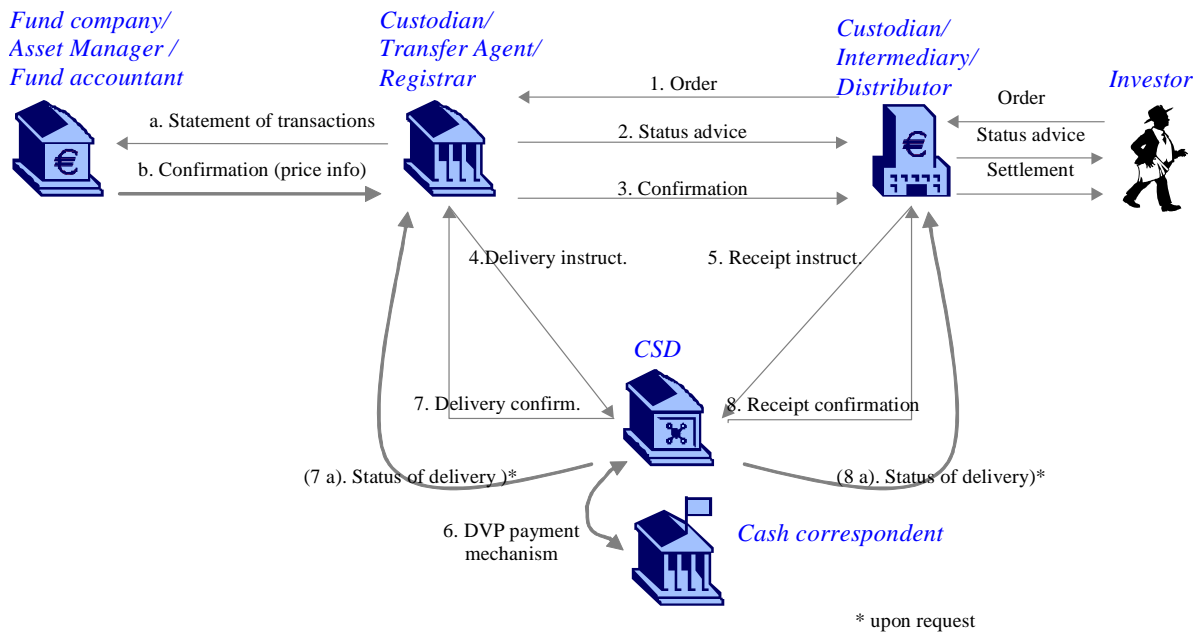
* e.g. Fundsettle of Euroclear

Here it is important to note that in the Luxembourg market, depending on the platform used, “DVP settlement either directly or via ICSD” can be used as well.

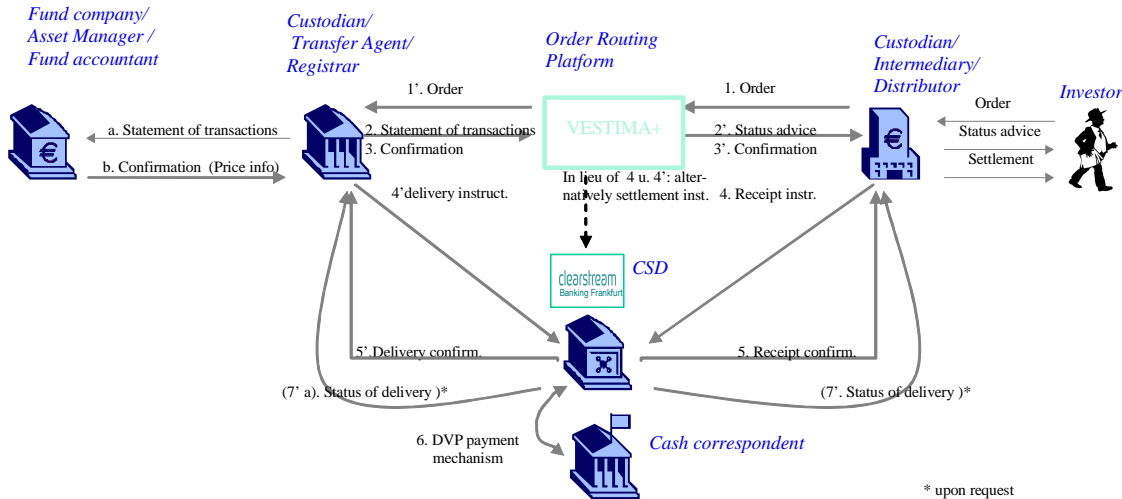
4.5.3 Order/Settlement process via a CSD – delivery free of payment “FOP”



4.5.4 Order/Settlement process via a CSD – delivery versus payment “DVP”



4.5.5 Order/Settlement process via a CSD – DVP via an order routing platform



5 Distribution of unit certificates

Although, In Luxembourg, two types of certification continue to exist, it does not represent the majority of the business; these market practices tend to disappear.

- “Registered certificate”: in addition to the record of the holding directly under the name of the unitholder in the fund’s register, a physical nominative certificate is issued. The above flows remain exactly the same the only difference is the issuance of an additional physical paper. Under the Luxembourg legislation, this certificate is indicative only; the registration remains the official proof of ownership.
- “Bearer certificate”: in that case, all holdings are recorded under a global artificial position usually called “bearer certificates in issue”. A physical anonymous certificate is issued. The above flows remain exactly the same the only difference is that this physical paper is sent to the subscriber (or his depository) and the bearer is the issuance of an additional physical paper. Under the Luxembourg legislation, this certificate is indicative only; the registration remains the official proof of ownership.

6 Unit transfers

The transfer of ownership is recorded either within the register of the funds by debiting/crediting the concerned accounts either via physical delivery of the bearer certificate to the counterparty.

7 Position Statements of holding

Statements are usually issued by the Transfer Agent in charge of the maintenance of the registers. They are issued to the recorder owner (i.e., investors, intermediary of any kind...). Position reporting is identical to the reports on equities and bonds.

8 Role and Services of SWIFT

SWIFT is a cooperative of the financial industry. It basically offers two services:

- Telecommunications with a high level of security, confidentiality and availability. Connection of all financial institutions across a common global network. Current status: more than 7,500 institutions in 200 countries.
- Standardized data and transaction formats. Jointly with the financial industry, SWIFT develops and updates standards. Generally, these standards are based on international guidelines (ISO standards, such as ISO 15022). Market Practice documents such as this one specify the application of these standards in a given market.

SWIFT's responsibilities are clearly defined:

- SWIFT is not itself an intermediary
- SWIFT does not offer any software for transaction processing but will establish contacts with vendors if desired.

9 Contacts & Useful Links

ALFI TASC Luxembourg – key representatives *Fund Processing Standardisation Working Group*

Josée Lynda Denis: The Bank of New York Europe Limited - jdenis@bankofny.com

Caroline Prosperi: CACEIS Luxembourg - caroline.prosperi@caceis.com

François Honoré: DEXIA-BIL Luxembourg - francois.honore@dexia-bil.com

Useful Links

Luxembourg TA & Distribution Forum	www.taforum.lu
Efama	www.efama.org
ALFI	www.alfi.lu
Almus	www.luxembourg.community.swift.com
SMPG	www.smpg.info

10 APPENDIX

10.1 Background

10.1.1 ISO certified message types for fund trading

In early 2000, SWIFT was requested by several companies active in the investment fund business to find a solution for standardizing communication primarily in the distribution of funds (subscription and redemption of investment fund units).

In the same year, so called *Fund Templates* were developed for the currently existing **ISO 15022 based trading message types (MT502, 509, 515)** in order to support the information flow regarding the subscription and redemption of investment fund units. For this purpose, additional fund specific qualifiers and codes were officially introduced in the SWIFT-Standard Release 2001.

For fund settlement, the following **ISO15022 message types**, in production since 2001, are used:

- **Settlement MT540 –548** for the settlement of **transfers**,
- **Statements MT535 –537** for **reconciling holdings, transactions and pending**
- **Transactions** and
- **Corporate Actions MT564 –568** for **announcing and confirming cash forecasts**.

The ISO15022 based message types are restricted to certain core functionalities for settlement. For this reason they do not support further fund specific processes such as opening accounts or supporting bulk orders. Therefore, SWIFT decided together with interested market participants to include the fund processes in the further elaborated ISO 20022 standard, to comprehensively model fund processes and to underlay them with a new, extended set of message types.

The result is a **Process-Model for the settlement of funds** that was incorporated in the **ISO 20022 Standard-Repository**. The ISO certified process today forms the basis of a detailed set of new **XML based UNIFI Funds message types**. Since April 2004, the XML based UNIFI Funds message types can be used in the financial industry under the name of **SWIFTNet Funds Solution**. SWIFT continues to work on the SWIFTNet Fund Solution and to add further ISO certified message types.

10.1.2 The ISO process model for the settlement of funds

The ISO certified process model for fund settlement is an integral part of all financial processes described in the **ISO 20022 Standard Repository**. This repository is extremely relevant for ISO's standardisation processes; it integrates different process areas and thus has become increasingly important for the entire financial industry.

The ISO-Standard-Repository consists of the following elements:

- The **ISO Data Dictionary** describes all information elements relevant for the messaging process.
- The **ISO Business Process Catalogue** includes the modelled fund business procedures.
- The catalogue also provides information on the **actors** involved in the relevant processes as well as details on the **information flows** relevant for the messaging process.
- Such **generalized processes** form the basis for the ISO-certification of message types.

- In the fund business, the information flows embrace different processes such as account opening, orders for the subscription and redemption of investment fund units, transfers of investment fund units, status reports, order confirmations, price reports and cash forecast reports.

10.2 Message syntax and types in fund trading

10.2.1 Account Opening

UNIFI-Messages (ISO 20022)
Account Opening Instruction
Account Opening Confirmation
Account Modification Instruction
Account Modification Confirmation

10.2.2 Orders (Subscription / Redemptions / Switches)

FIN Messages (ISO 15022)	UNIFI-Messages (ISO 20022)	FIX Messages
MT 502 Order to Buy (<i>Subscription</i>) or Sell (Redemption)	Subscription Bulk Order	Trade Order (for subscription and redemption)
MT 502 Order to Buy or Sell - Cancellation Request	Subscription Bulk Order Cancellation Instruction	Trade Order cancellation (for subscription and redemption)
	Subscription Multiple Order	
	Subscription Multiple Order Cancellation Instruction	
	Redemption Bulk Order	
	Redemption Bulk Order Cancellation Instruction	
	Redemption Multiple Order	
	Redemption Multiple Order Cancellation Instruction	
	Switch Order	
	Switch Order Cancellation Instruction	

10.2.3 Status Reports (Subscription / Redemptions / Switches)

FIN Messages (ISO 15022)	UNIFI-Messages (ISO 20022)	FIX Messages
MT509 Trade Status Message – Order Status Receiver (for subscription and redemption)	Order Status Report	Trade Status Message – Order Status Receiver (for subscription and redemption)
MT509 Trade Status Message - Cancellation Request	Order Cancellation Status Report	Trade Status Message – Cancellation Request (for subscription and redemption)
	Request for Order Status Report	

10.2.4 Order Confirmations (Subscription / Redemptions / Switches)

FIN Messages (ISO 15022)	UNIFI-Messages (ISO 20022)	FIX Messages
MT 515 Client Confirmation of Purchase (Subscription) or Sale (Redemption)	Subscription Bulk Order Confirmation	Client Trade Confirmation (for subscription and redemption)
	Subscription Multiple Order Confirmation	
	Redemption Bulk Order Confirmation	
	Redemption Multiple Order Confirmation	
	Switch Order Confirmation	

10.2.5 Transfer Instructions

FIN Messages (ISO 15022)	UNIFI-Messages (ISO 20022)
MT540 – MT543 Settlement Instruction	Transfer IN Instruction
MT540 – MT543 Settlement Instruction Cancellation	Transfer IN Cancellation Instruction
	Transfer OUT Instruction
	Transfer OUT Cancellation Instruction

10.2.6 Transfer Status Reports

FIN Messages (ISO 15022)	UNIFI-Messages (ISO 20022)
MT548 Settlement Status & Processing Advice	Transfer Instruction Status Report
MT548 Settlement Status & Processing Advice – Cancellation Request Status	Transfer Cancellation Status Report
	Request for Transfer Status Report

10.2.7 Transfer Confirmations

FIN Messages (ISO 15022)	UNIFI-Messages (ISO 20022)
MT544 – MT547 Settlement Confirmation	Transfer IN Confirmation
	Transfer OUT Confirmation
	Reversal of Transfer IN Confirmation
	Reversal of Transfer OUT Confirmation

10.2.8 Statements

FIN Messages (ISO 15022)	UNIFI-Messages (ISO 20022)
MT535 Statement of Holdings	Custody Statement of Holding
MT536 Statements of Transactions	Custody Statements of Holdings Cancellation
MT537 Statements of Pending Transactions	Accounting Statement of Holdings
	Accounting Statement of Holdings Cancellation
	Statement of Investment Fund Transactions
	Statement of Investment Fund Transactions Cancellation

10.2.9 Price Reports

FIN Messages (ISO 15022)	UNIFI-Messages (ISO 20022)
	Price Report
	Price Report Cancellation
	Price Report Correction

10.2.10 Funds Cash Forecast Reports

FIN Messages (ISO 15022)	UNIFI-Messages (ISO 20022)
MT564 Corporate Action Notification	Fund Estimated Cash Forecast Report
MT566 Corporate Action Confirmation	Fund Confirmed Cash Forecast Report
MT568 Corporate Action Narrative	Fund Confirmed Cash Forecast Report Cancellation
	Fund Detailed Estimated Cash Forecast Report
	Fund Detailed Confirmed Cash Forecast Report
	Fund Detailed Confirmed Cash Forecast Report Cancellation