Post-Trade Processing via FIX Recommended Practices - SEF, FX and FI

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Document History

Date	Editor(s)	Description	Version	Status
3/24/2014	D. Tolman		V1.0.01	Draft
4/2/2014	D. Tolman	Updated workflow diagrams (no issues, pre-trade issue, post-trade issue)	V1.0.03	Draft
4/4/2014	D. Tolman	- added short section on “bunched” trades - added discussion of regulatory transaction-id linkage - added diagram showing transaction-id return	V1.0.04	Draft
4/9/2014	D. Tolman	- added optional “platform” to diagrams	V1.0.05	Draft
4/21/2014	D. Tolman	- added TradeAllocStatus(1804) to represent clearing status - added issue: buy-side specification of full-void-only.	V1.0.06	Draft
4/28/2014	D. Tolman	- switched from TradeAllocStatus to ClearedIndicator(1832) - more details on use of Confirmation messages - cleaned up requirements section and added “progress” requirement - updated diagrams with full and partial void workflows	V1.0.07	Draft
4/30/2014	D. Tolman	Based on FIA review: Removed buy-side choice of only-full-void. Added the case where the post-trade void is caused by a counter-party issue Post-clearing voids are handled out of band	V1.0.08	Draft
5/1/2014	D. Tolman	Minor diagram update	V1.0.10	Draft
5/28/2014	D. Tolman	Adjusted section on post-clearing voids per FIA SEF subgroup meeting.	V1.0.11	Preliminary
7/22/2014	D. Tolman	Moved clearing house to leg-level for MLEGs	V1.0.12	Preliminary
2/6/2015	D. Tolman	ClearedIndicator(1832): Added removed ‘ineligible”	V1.0.14	Preliminary
5/5/2015	D. Tolman	Added new valid values for ClearedIndicator(1832)	V1.0.14	Preliminary

1 Preface

The purpose of the FTC Post-Trade Processing via FIX Initiative is to define industry guidelines for common usage of the FIX Protocol for post-trade processing between buy-sides and sell-sides that can be used bi-laterally as well as through intermediary facilities.

This document is one of a series of Guidelines for Post-Trade Processing via FIX specifying guidelines for industry usage of the FIX standard to facilitate parallel implementation across buy-sides, sell-sides and intermediaries.

2 Scope

This document primarily focuses on the buy-side to sell-side workflow for trades executed on a SEF utilizing a pre-trade allocation workflow as opposed to "bunched" trades.

> *Note: There is a short discussion and workflow diagram on "bunched" trades but basically they use the normal post-trade workflow.*

3 Introduction

The pre-trade allocation workflow is utilized for workflows requiring confirmation prior to the trade that the transactions (allocations of the trade) will clear (sometimes referred to as "clearing certainty") with no further buy-side communication (normally) between placements and clearing.

This buy-side/sell-side FIX workflow is designed to meet the requirement of the SEF Pre-trade Allocation Workflow as specified by the FIA.

4 References

Currently located on the FPL Website at: [http://www.fixtradingcommunity.org/pg/structure/fix-guidelines/best-practiceguidelines-directory] under the "**Post Trade**" heading.

5 Assumptions

1. Pre-allocated SEF trades will be fully-filled unless there are credit issues or operational issues.
    a. Pre-trade clearing issues are communicated via a partial fill, dropping the quantity that was to be allocated to buy-side accounts with issues
2. Post-trade clearing issues are of two type:
    a. Buy-side account issues:
        i. Trade will be reduced by the amount that was to be allocated to the accounts with issues.
        ii. Accounts with issues will receive 0 quantities.
    b. Counter-party account issues:

i. Trade will be reduced by the amount that was to be allocated to the accounts with issues.
ii. Remainder of the trade will be reallocated across the buy-side accounts (re-allocation will be done by the CCP according to agreement with the buy-side)

6 Requirements

6.1 Buy-side Specification – Pre-trade

1. Clearing house (CCP)
    a. Buy-side may optionally specify one or more parameters to be passed to the CCP (e.g. netting id).
2. Trading restrictions
    a. Trading-counterparties list
        i. Inclusive
3. Pre-trade allocation instructions
    a. Account
    b. Quantity
    c. IndividualAllocId
    d. FCM
        i. FCMs may be different for different accounts.

6.2 Sell-side Communication Back to Buy-side

1. Final transaction details:
    a. Instrument
    b. Account
    c. Parties
        i. FCM
        ii. Clearing house
        iii. Order origination firm
    d. Quantity
    e. Price
    f. Other fields including:
        i. SEF or not
        ii. Block-trade or not
        iii. MAT or not
        iv. LEI of associated dealer
2. Clearing progress - individual notifications of the following events:
    a. Allocation
    b. Clearing submission
    c. Clearing acceptance or rejection
3. Regulatory transaction-identifiers:
    a. “block-trade” event
    b. “allocation” event

c. “clearing” event
d. “alpha” event

4. Trade adjustments due to pre-trade or post-trade issues
    a. Adjusted trade quantity
    b. Adjusted account allocation

7 Open Issues

7.1 ClearedIndicator valid-values

Additional values are needed.

7.2 Bunched Trade Workflow

The bunched trade workflow as described is the normal post-trade workflow from the perspective of the buy-side – meaning that the clearing of the bunched trade prior to reallocation is transparent to the buy-side. The buy-side receives the execution report and sends a post-trade AllocationInstruction and receives Confirmations in terms of the final allocation, not the bunched trade. The issue as been raised as to whether or not the bunched trade workflow should be extended to explicitly Confirm the clearing of the bunched trade prior to the final allocation.

7.2.1 Additional ExecutionReport fields

- SEF or not
- Block-trade or not
- MAT or not
- LEI of the associated dealer

8 Key Concepts/Processes/Notes

8.1 Parties

- Order Origination Firm
- Executing Broker
- Clearing Firm
- Clearing House

8.2 Specification of Clearing-house parameters

Clearing house parameters (e.g. netting-id) are specified in the <***PtysSubGrp***> component of the clearing house party.

8.3 Pre-trade Allocation Instructions

Allocations are specified in the placement message, essentially like embedding an AllocationInstruction(35=J) message in the placement messages:

- AllocId(70)
- Allocations
  - Account(1)
  - AllocAccountIdSource(661)
  - AllocQty(80)
  - IndividualAllocId(467) - Used as link in Confirmation(35=AK) messages
  - FCM

8.4 Execution Reports

The normal expectation is that pre-allocated SEF trades are fully-filled (i.e. a fully filled ExecutionReport (35=8) is returned). Partial fills are viewed as exception conditions (see Clearing Issues section)

8.5 Clearing issues

8.5.1 Pre-trade clearing issues

- Pre-trade clearing issues are reported via partial-fill execution reports:
  - Indicate that there were issues with one or more of the accounts.
  - The Allocation component is returned in the execution report with AllocQty(80) = 0 for rejected accounts.
- If the trader decides to cancel the entire trade this will be communicated via an unsolicited cancel execution report.

8.5.2 Post-trade clearing issues

Post-trade clearing issues are communicated via a combination of ExecutionReport(35=8) messages and Confirmation(35=AK) messages.

There are two causes of post-trade voids:

1. A problem with a buy-side account
   a. The trade is reduced by the allocation amount for the account
   b. The account AllocQty(80) = 0
2. A problem with a counter-party account
   a. The trade is reduced by the allocation amount for the counter-party account
   b. The CCP reallocates the remaining quantity across the buy-side accounts. This is typically pro-rata but it could vary by CCP.

The following messages are returned to the buy-side to reflect these cases:

- ExecutionReport(35=8) (ExecType(150)=G (Trade correct).
  - Executed quantity is reduced by the amount of the rejected account
  - Includes AllocGrp component:
    - Buy-side issue: AllocQty(80) = 0 for bad accounts from buy-side.

        - Counter-party issue: Buy-side accounts are re-allocated if issue caused by counter-party account.
- Confirmation(35=AK) messages
    - ClearedIndicator(1832) = 3 (Rejected) - For accounts with clearing issue
        - AllocQty(80) = 0
        - Brought to 0 by insufficient quantity is also considered to be a “reject”.
    - ClearedIndicator(1832) = 1 (Cleared) - For other accounts
        - AllocQty(80) may not be the full requested quantity in counter-party account issues.

8.5.3 Post-clearing voids

Trades are not voided post-clearing, compensating transactions must be executed.

8.6 Clearing Progress Communication

The Confirmation (AK) message is used to communicate clearing progress/status back to the buy-side.

A Confirmation message should be sent to the buy-side for each of these events:

- Allocation
- Submission to clearing house
- Clearing or rejection

Clearing status is specified using the following tag:

- ClearedIndicator (1832)
    - 0 = Not-cleared
    - 1 = Cleared
    - 2 = Submitted
    - 3 = Rejected

8.7 Regulatory Transaction-IDs

Block-level ids:

- Returned in ExecutionReport(35=8) messages and in Confirmation(35=AK) messages
    - RegulatoryTradeIDEvent(1904)=0 (Initial block trade)

Transaction/Account-level ids:

- Returned in Confirmation messages.
    - Allocation – RegulatoryTradeIDEvent(1904) = 1 (Allocation)
    - Clearing – RegulatoryTradeIDEvent(1904)=2

The transaction-ids are represented in the following FIX fields:

NoRegulatoryTradeIDs(1907)	<Count>
->RegulatoryTradeID(1903)	<unique ID in context of TradeIDSource> (USI or UTI)

->RegulatoryTradeIDSource(1905) ID of reporting entity assigned by regulatory agency
->RegulatoryTradeIDEvent(1904) Event causing origination of the ID.
Supported values:
0 = Initial block trade
1 = Allocation, or determination that the block trade will not be further allocated
2 = Clearing
3 = Compression
4 = Novation
5 = Termination
->RegulatoryTradeIDType(1906) Position of ID in trade hierarchy.
Supported values:
0 = Current
1 = Previous - e.g. when reporting a cleared trade or novation of a previous trade)
2 = Block - e.g. when reporting an allocated sub-trade)
3 = Related - e.g. when reporting a mixed swap)

Note: Confirmation messages include the complete set of transaction-ids for the transaction, i.e. a Confirmation message reporting allocations will include the block-level id and a Confirmation message reporting clearing will include both the account-level ids and the block-level id.

8.8 Message Linkage

Allocation related messages are linked by AllocId(70) and IndividualAllocId(467). These are initially provided in the placement messages and returned in ExecutionReport(35=8) messages and Confirmation(35=AK) messages.

8.9 Pre-trade Allocation vs. "bunched" trades

"Bunched" trades utilize a "stand-by" FCM that assumes risk on behalf of the buy-side for the trade execution. After the trade is executed the buy-side sends allocation instructions to the SEF to be forwarded to the FCMs for clearing.

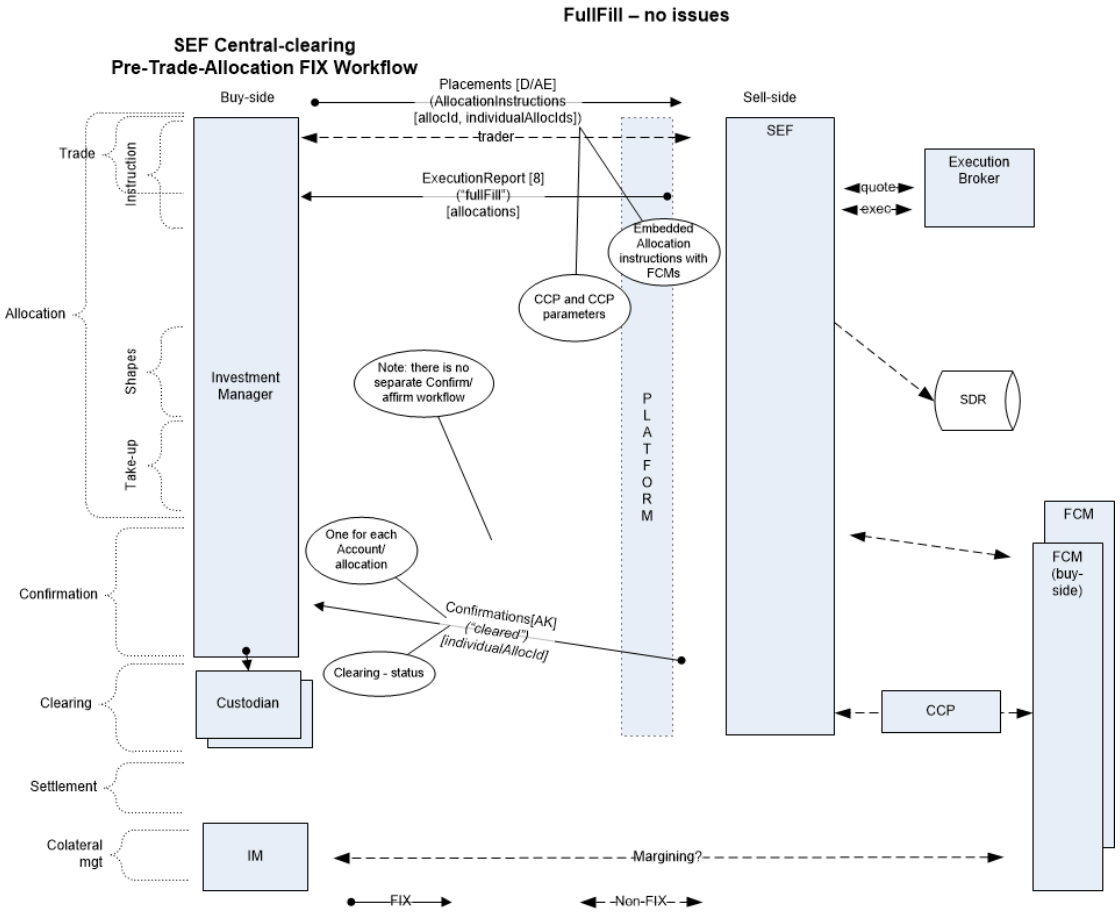
This workflow utilizes that normal post-trade workflow (i.e. AllocationInstruction(35=J) message following trade ExecutionReport(35=8)) specifying the account-level allocations.

- The "stand-by" FCM is included in the **Parties** component of the FIX placement message.
- Return of regulatory transaction-ids is the same – (see section 8.7)
- Return of clearing-status is the same– (see section 8.6)

9 WorkFlow – Pre-trade Allocation

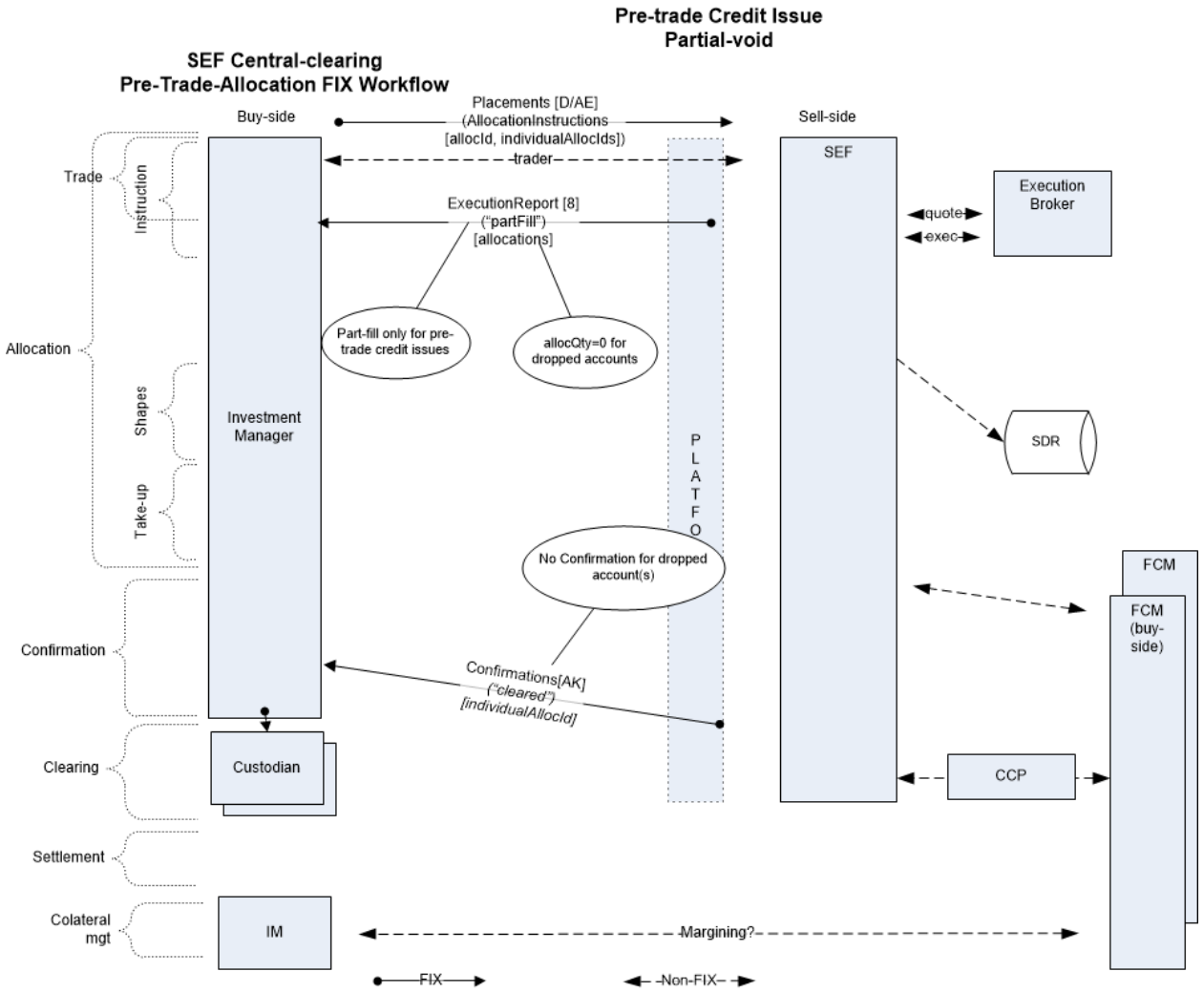
9.1 FullFill – No Credit Issues

Figure 1 Pre-Trade Allocation: Fulfill - No Credit Issues



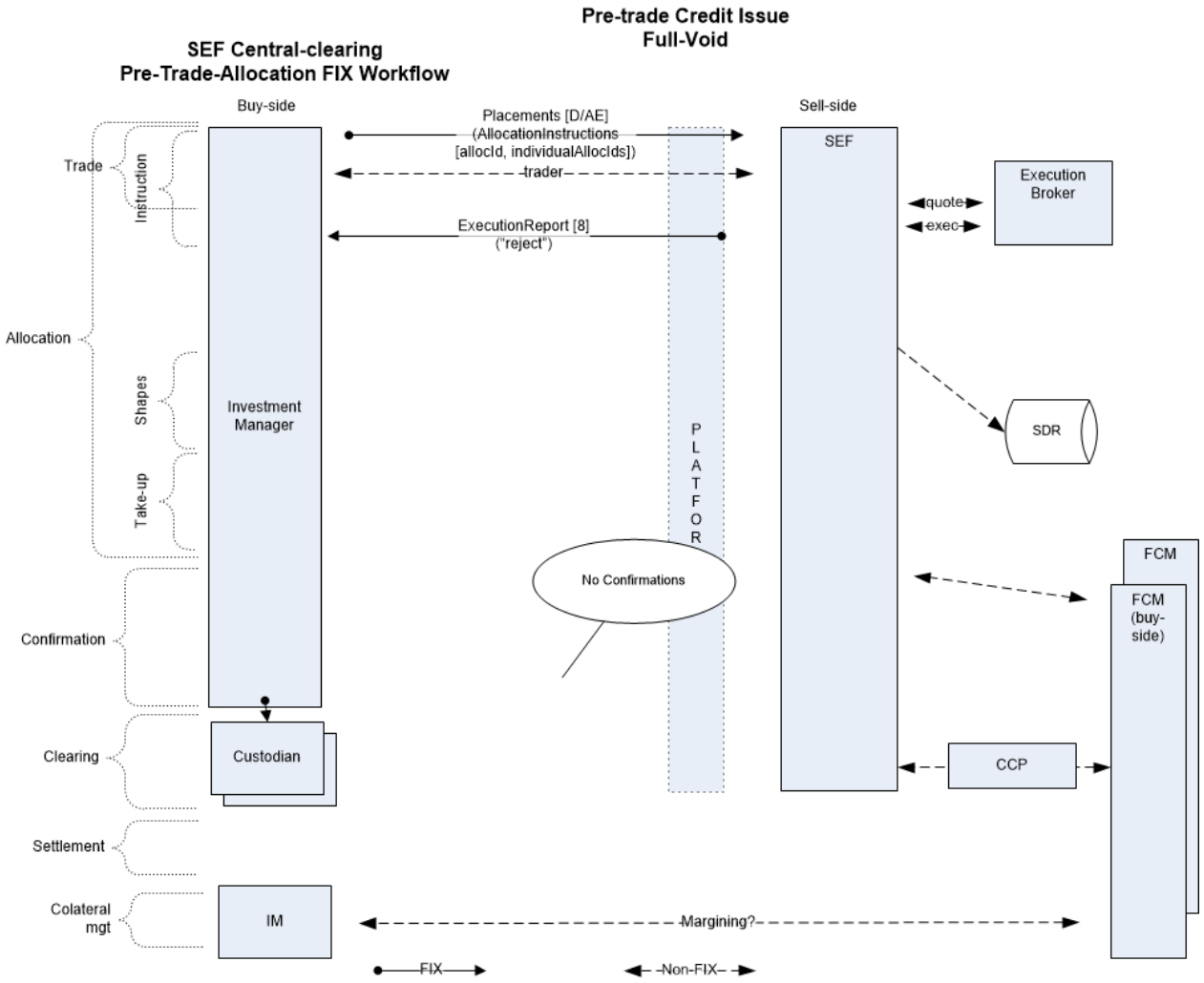
9.2 Pre-trade Credit Issue – Partial-void

Figure 2 Pre-Trade Allocation: Pre-Trade Credit Issue - Partial-Void



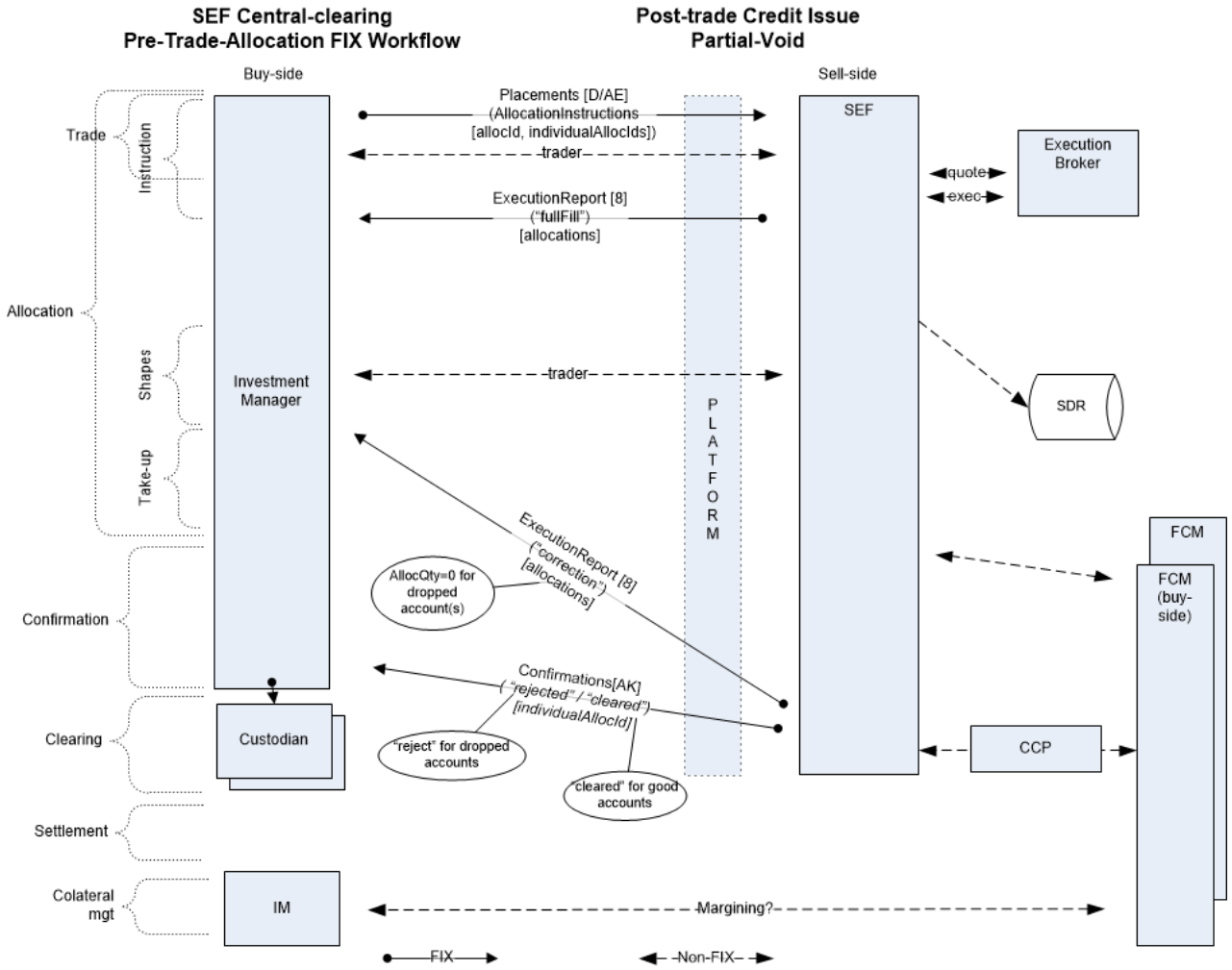
9.3 Pre-trade Credit Issue – Full-void

Figure 3 Pre-Trade Allocation: Pre-Trade Credit Issue - Full-Void



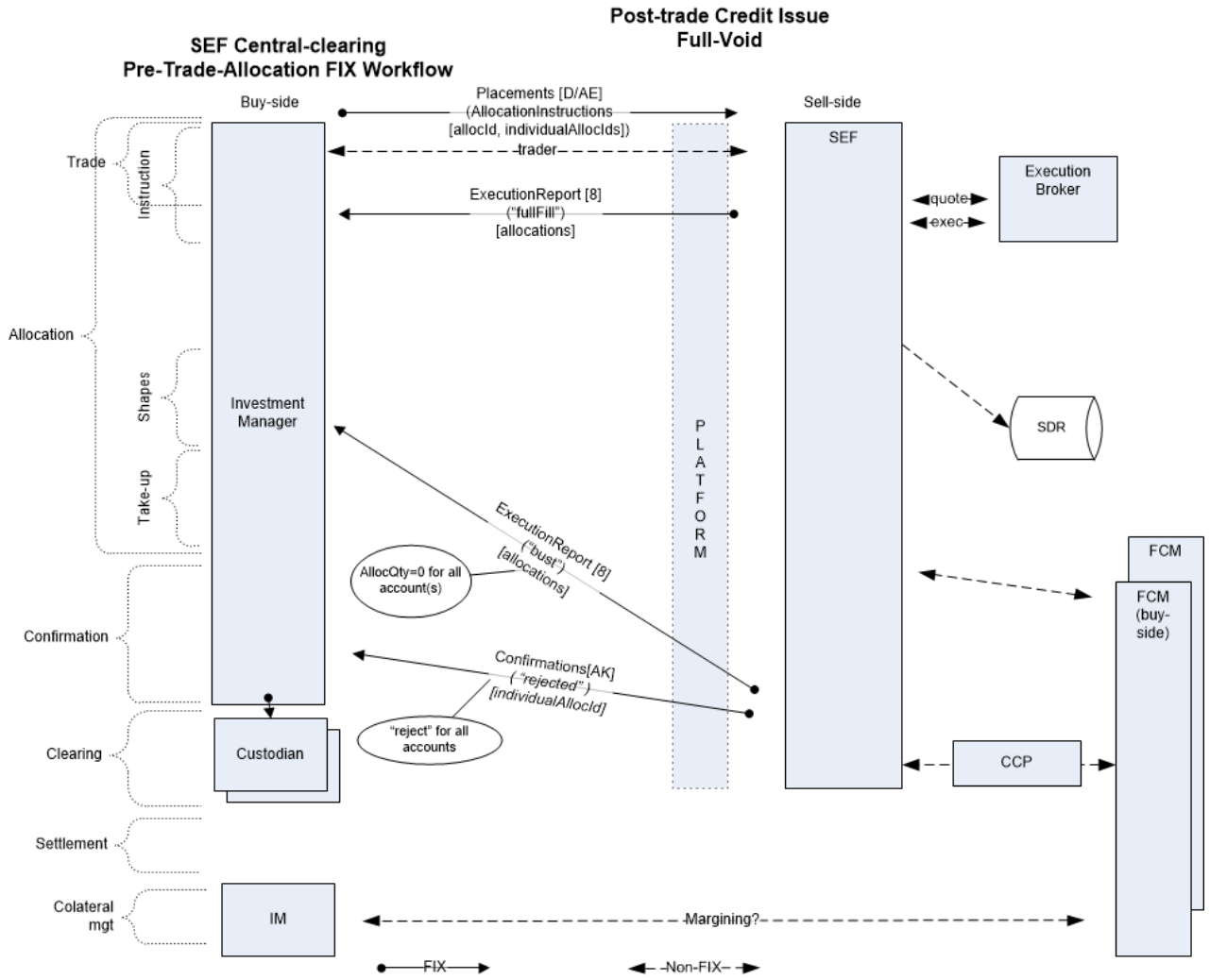
9.4 Post-trade Credit Issue - Partial-void

Figure 4 Pre-Trade Allocation: Post-Trade Credit Issue - Partial-Void



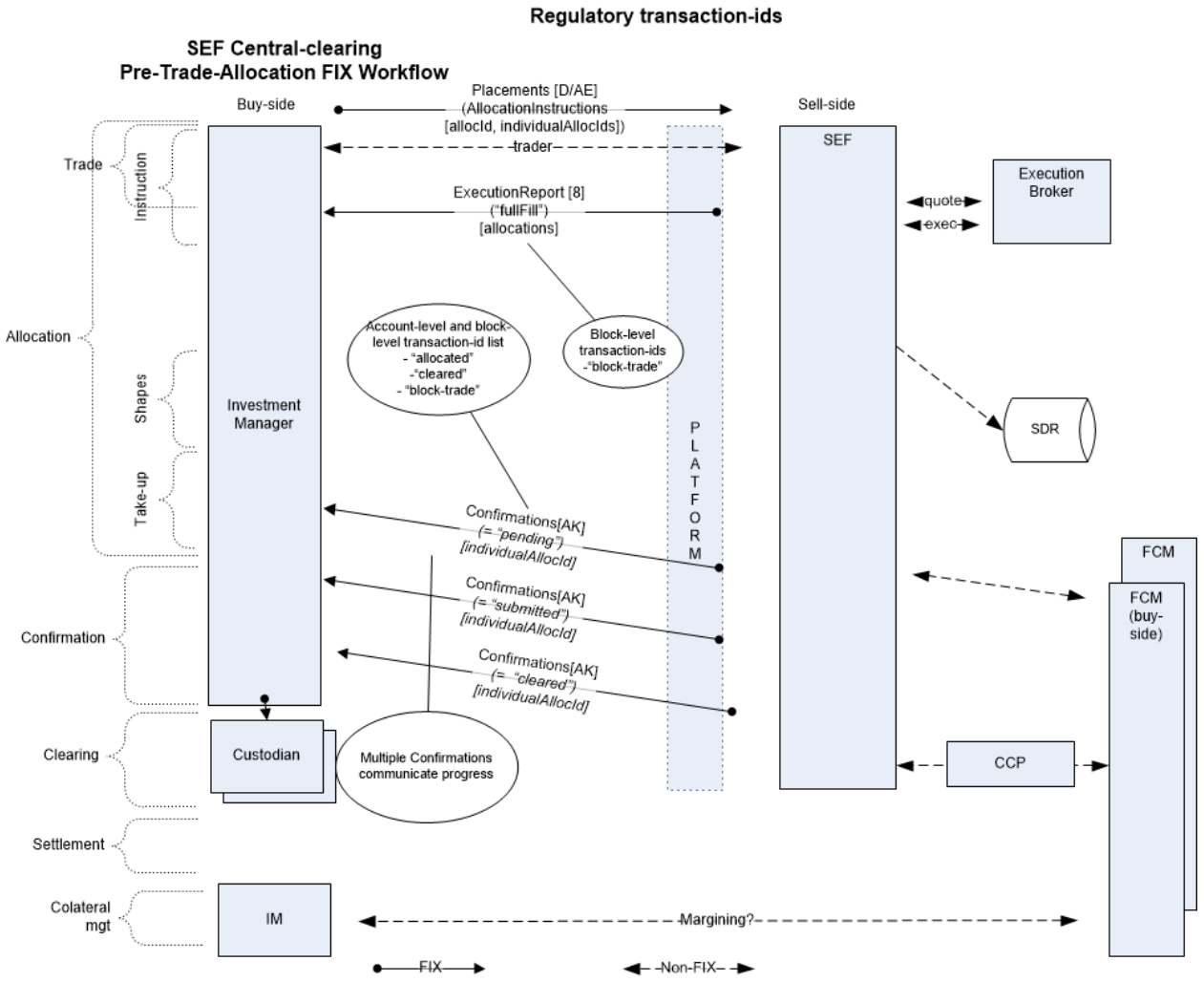
9.5 Post-trade Credit Issue - Full-void

Figure 5 Pre-Trade Allocation: Post-Trade Credit Issue - Full-Void



9.6 Regulatory Transaction-ids

Figure 6 Pre-Trade Allocation: Regulatory Transaction-ID's

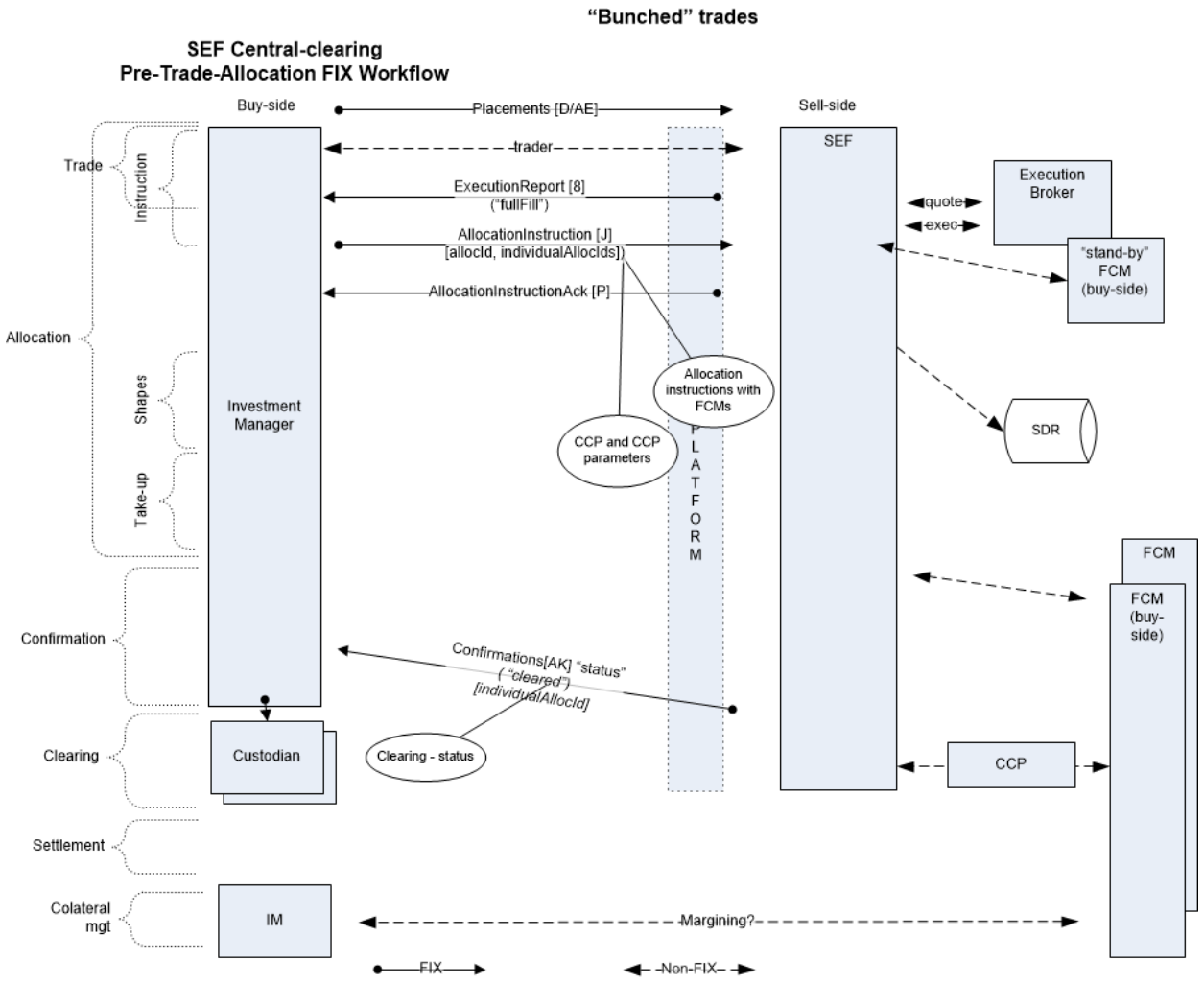


9.7 Summary of Confirmation Message Events – Key Fields

	Confirm TransType (666)	ConfirmID (664)	Confirm RefID (772)	Confirm Type (773)	Cleared Indicator(1832)	Confirm Status (665)	TransactionId list (19nn)	AllocID (70)	Individual AllocID (467)
no issues									
Confirmation messages									
allocation	new	<new>	n/a	confirm	not cleared(0)	confirmed	block,alloc	reflect	reflect
clearing submission	new/rep	<new>	<ref>	confirm	submitted(tbd)	confirmed	block,alloc	reflect	reflect
cleared	replace	<new>	<ref>	confirm	cleared(1)	confirmed	block,alloc, cleared	reflect	reflect
partial void - post-trade									
Confirmation messages									
clearing "reject" (bad accts)	cancel	<new>	<ref>	confirm	rejected(tbd)	confirmed	block,alloc	reflect	reflect
cleared (good accts)	*see above*								
ExecutionReport-correction	*reduced by amount of rejected account(s)*								
full void - post-trade									
Confirmation messages									
clearing "reject" (bad accts)	cancel	<new>	<ref>	confirm	rejected(tbd)	rejected	block,alloc	reflect	reflect
clearing "cancel" (good accts)	cancel	<new>	<ref>	confirm	canceled(tbd)	rejected	block,alloc	reflect	reflect
ExecutionReport-bust									

10 “Bunched” Trades Workflow

Figure 7 Pre-Trade Allocation: Bunched-Trades



11 FIX Messages - Key Tags

FIX tag	FIX tag Single	FIX tag MLEG	NewOrder Single	NewOrder MLEG	Single ER, Mleg ER(150=F)	MLEG ER (150 != F)	Confirmation	Valid values
MessageType	35	35	"D"	"AB"	"8"	"8"	"AK"	
Status Section								
ConfirmStatus	665	665	n/a	n/a	n/a	n/a	req	Supported values: 4 = Confirmed 5= Rejected
ClearedIndicator	1832	1832	n/a	n/a	n/a	n/a	Req	Supported values: 0 = Not-cleared 1 = Cleared 2 = Submitted 3 = Rejected
End Status Section								
Parties								
*<**Parties**> Component*								
NoPtyIds	453	453	req	req	req	req	req	<# of parties>
Order Origination Firm								
->PartyID	448	448	req	req	req	req	req	"Firm name"
->PartyIdSource	447	447	req	req	req	req	req	Supported values: C = Generally accepted market participant identifier
->PartyIdRole	452	452	req	req	req	req	req	13 = Order origination firm
Executing Broker								
->PartyID	448	448	n/a	n/a	req	n/a	req	"Firm name"

FIX tag	FIX tag Single	FIX tag MLEG	NewOrder Single	NewOrder MLEG	Single ER, Mleg ER(150=F)	MLEG ER (150 != F)	Confirmation	Valid values
->PartyIdSource	447	447	n/a	n/a	req	n/a	req	Supported values: C = Generally accepted market participant identifier B = BIC N = LEI
->PartyIdRole	452	452	n/a	n/a	req	n/a	req	Supported values: 1 = executing broker
Clearing House								
->PartyID	448	524 (leg)	req	req	req	req	req	<clearing house id>”
->PartyIdSource	447	525	req	req	req	req	req	Supported values: C = Generally accepted market participant identifier B = BIC
->PartyIdRole	452	538	req	req	req	req	req	Supported values: 21 = clearing house
->NoPartySubIDs	802	804	Opt	Opt	n/a	n/a	n/a	1
--->PartySubID	523	545	Opt	Opt	n/a	n/a	n/a	<CCP parameter>
--->PartySubIDType	803	803	Opt	Opt	n/a	n/a	n/a	CME Supported values: 4000 = NettingID
Clearing Firm - bunched								
->PartyID	448	448	n/a	n/a	n/a	n/a	Req (bunched)	<clearing house id>”

FIX tag	FIX tag Single	FIX tag MLEG	NewOrder Single	NewOrder MLEG	Single ER, Mleg ER(150=F)	MLEG ER (150 != F)	Confirmation	Valid values
->PartyIdSource	447	447	n/a	n/a	n/a	n/a	Req (bunched)	Supported values: C = Generally accepted market participant identifier B = BIC N = LEI
->PartyIdRole	452	452	n/a	n/a	n/a	n/a	Req (bunched)	Supported values: 4 = Clearing firm
FCM								
->PartyID			Req(524)	Req(757)	n/a	n/a	Req (448)	<clearing firm id>"
->PartyIdSource			Req(525)	Req(758)	n/a	n/a	Req(447)	Supported values: C = Generally accepted market participant identifier B = BIC N = LEI
->PartyIdRole			Req(538)	Req(759)	n/a	n/a	Req(452)	4 = clearing firm
*End <**Parties**> Component*								
End Parties Section								
Allocation Instructions and Results								
AllocId	70	1366	req	req	req	n/a	req	<unique identifier> (buy-side generated)
*<**AllocGrp**> Component*								
NoAllocs	78	670	req	req	req	n/a	n/a	Supported values: >=1
->AllocAccount	79	671	req	req	req	n./a	req	<clientAccountId>

FIX tag	FIX tag Single	FIX tag MLEG	NewOrder Single	NewOrder MLEG	Single ER, Mleg ER(150=F)	MLEG ER (150 != F)	Confirmation	Valid values
->AllocIdSource	661	674	req	req	req	n/a	req	Supported values: 4 = OMEGEO (AlertId)
->AllocQty	80	673	req	req	req	n/a	req	<quantity> (to be allocated to this account)
->IndividualAllocID	467	672	req	req	req	n/a	req	<transaction-id> (buy-side generated)
->AllocSettlCurrency	736	1367	opt	opt	opt	n/a	opt	<currencyCode>
*End <**AllocGrp**> Component*								
End Allocation Instructions and Results Section								
Regulatory Transaction-ID's Section								
*<**RegulatoryTradeIDGrp**> Component*								
NoRegulatoryTradeIDs	1907	n/a	n/a	n/a	Opt	n/a	req	<Count>
->RegulatoryTradeID	1903	n/a	n/a	n/a	Opt	n/a	req	<unique ID in context of TradeIDSource> (USI or UTI)
->RegulatoryTradeIDSource	1905	n/a	n/a	n./a	Opt	n./a	req	ID of reporting entity assigned by regulatory agency

FIX tag	FIX tag Single	FIX tag MLEG	NewOrder Single	NewOrder MLEG	Single ER, Mleg ER(150=F)	MLEG ER (150 != F)	Confirmation	Valid values
->RegulatoryTradeIDEvent	1904	n/a	n/a	n/a	Opt (initial block trade event only)	n/a	Req (includes the complete list of event transaction identifiers including the initial-block-trade)	Event causing origination of the ID. Supported values: 0 = Initial block trade) 1 = allocation, or determination that the block trade will not be further allocated) 2 = Clearing) 3 = Compression 4 = Novation 5 = Termination
->RegulatoryTradeIDType	1906	n/a	n/a	n/a	Opt	n/a	req	Position of ID in trade hierarchy. Supported values: 0 = Current 1 = Previous(e.g. when reporting a cleared trade or novation of a previous trade) 2 = Block (e.g. when reporting an allocated sub-trade) 3 = Related (e.g. when reporting a mixed swap)
<***RegulatoryTradeIDGrp***> *Component*								

FIX tag	FIX tag Single	FIX tag MLEG	NewOrder Single	NewOrder MLEG	Single ER, Mleg ER(150=F)	MLEG ER (150 != F)	Confirmation	Valid values
End Regulatory Transaction-ID's Section								

12 Appendices

12.1 Post-trade Framework

Figure 8 Post Trade Framework