## Appendix 1 – DS-OL Use Cases

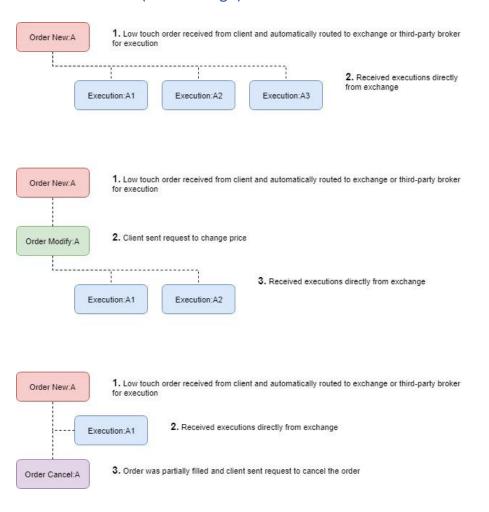
## Summary

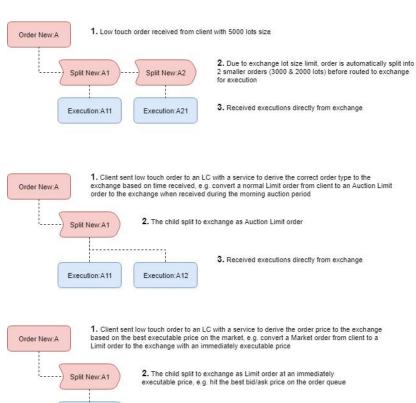
#	Use Cases	LT	HT/PT	Brief Descriptions
1	Low touch (without Algo)	$\checkmark$		Low Touch orders from client (with and without splits)
2	Low touch (with Algo)	$\checkmark$		Low Touch orders with Algo from client
3	High Touch/Program Trading		$\checkmark$	High Touch/Program Trading orders using manual fills
4	High Touch/Program Trading - Algo		$\checkmark$	High Touch/Program Trading orders using Algo for executions
5	High Touch/Program Trading - Internal Crossing		$\checkmark$	High Touch/Program Trading orders using internal cross
6	Alternative Liquidity Pool (ALP) Executions	$\checkmark$	$\checkmark$	Executions using internal Alternative Liquidity Pool (ALP)
7	Internet Trading	$\checkmark$		Retail client trading through the Internet
8	Multi-day Orders	$\checkmark$	$\checkmark$	Multi-day (GTC/GTD) orders
9	Basket Orders	$\checkmark$	$\checkmark$	Trading a basket of orders
10	Aggregated Orders		$\checkmark$	Aggregated orders executed at a HT/PT desk
11	Execution Corrections	$\checkmark$	$\checkmark$	Execution corrections (amendments and cancels)
12	Facilitation Trading		$\checkmark$	Client facilitations trade at a PT desk, including change in order capacity
13	Swap (hedging leg)	$\checkmark$	$\checkmark$	Generic example of swap orders
14	Race Conditions	$\checkmark$		Possible race condition handling client modification or cancel
15	Outage / Mass Cancel	$\checkmark$	$\checkmark$	Service outage scenario and mass cancel
16	Exceptions	$\checkmark$	$\checkmark$	Exceptions and special scenarios

Notes: 1. Event diagrams are depicted primarily to show the relationships between the events, which will not necessarily appear in this order in practice.

- 2. Event diagrams are for illustration purposes and only a minimal number of fields are shown. For a full list of fields for each event type please refer to the event definitions in the DS-OL Technical Specifications.
- 3. For the purpose of illustration, the order summary event is not depicted in some of the examples.

## 1. Low touch (without Algo)

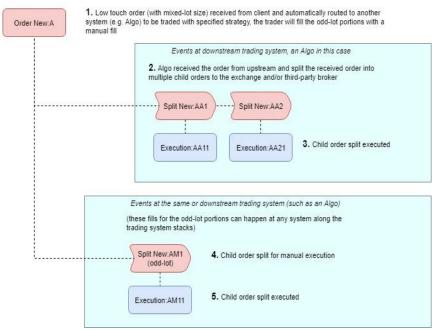


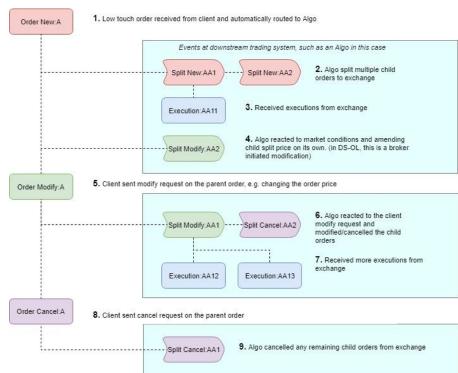


3. Received execution directly from exchange

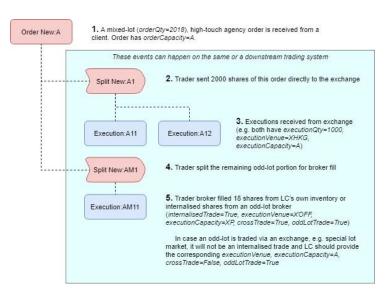
Execution:A11

## 2. Low touch (with Algo)

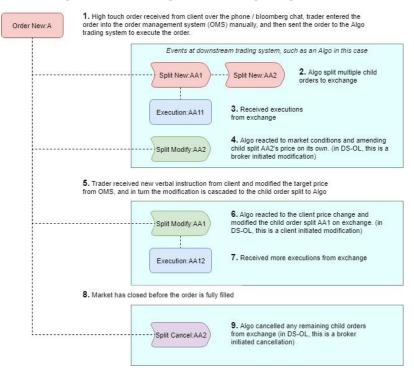




## 3. High Touch / Program Trading

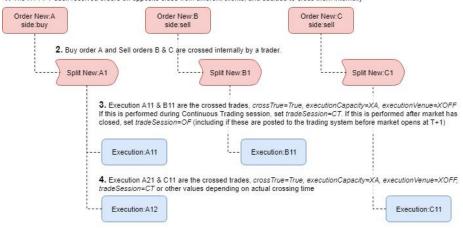


## 4. High Touch / Program Trading - Algo



## 5. High Touch / Program Trading - Internal Crossing

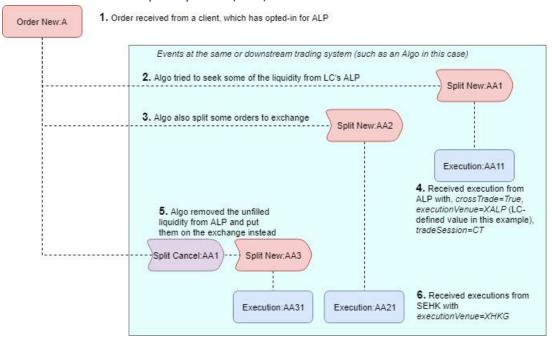
1. The HT / PT desk received orders on opposite sides from different clients, and decided to cross them internally



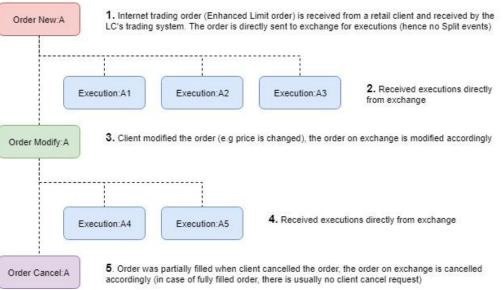
 The HT / PT desk received orders of opposite side from different clients, some are crossed with other clients and some are filled from LC's own inventory



## 6. Alternative Liquidity Pool (ALP) Executions

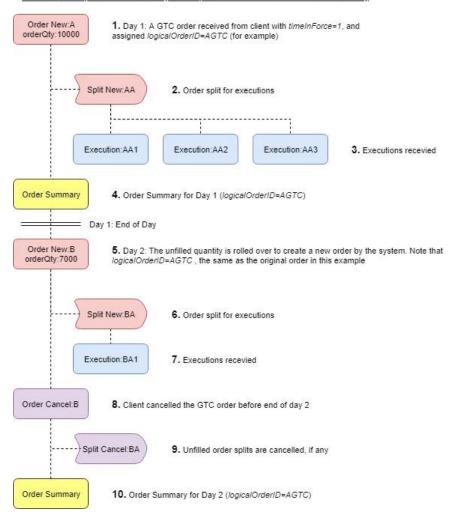


# 7. Internet Trading

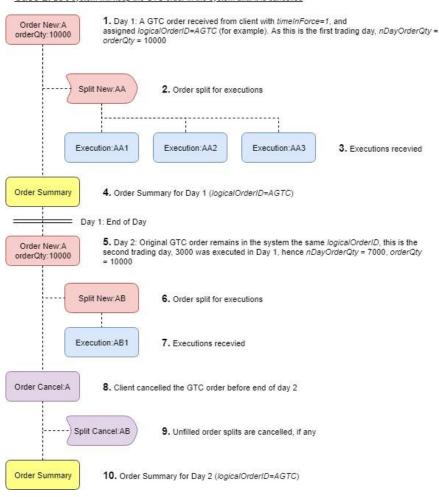


## 8. Multi-day Orders

Case 1: LC's system will roll over only unfilled part of the GTC order to the next business day

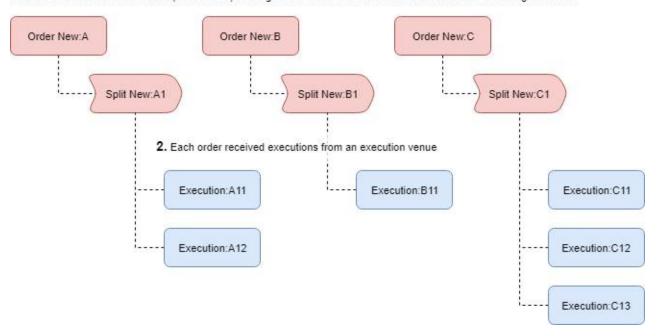


Case 2: LC's system will keep the GTC order in the system until it is cancelled

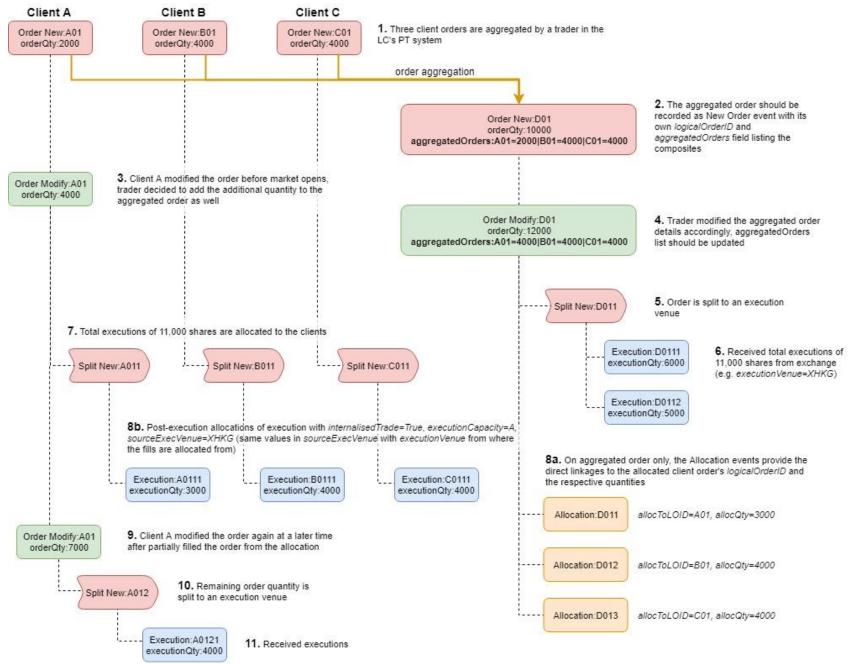


## 9. Basket Orders

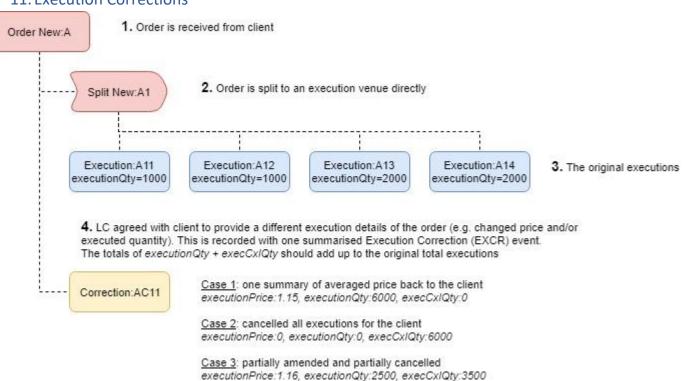
1. A basket of orders is received from a client to the PT desk. Orders can be traded in a group or individually depending on trader's decision. Collection ID (collectionID) is assigned as 'basket=BSK01' and each order has its own logicalOrderID



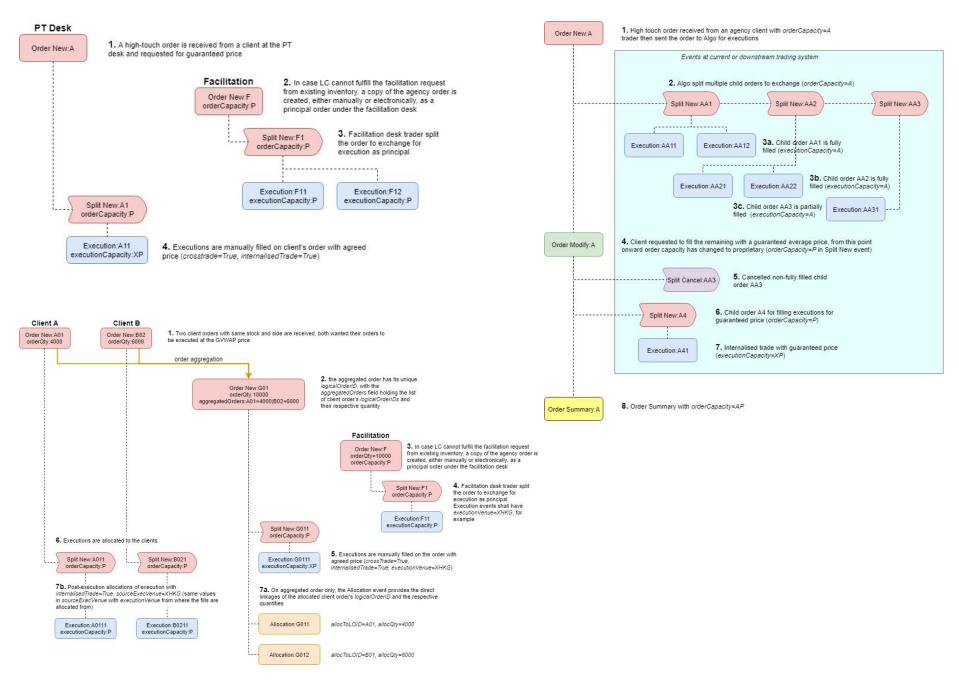
## 10. Aggregated Orders



## 11. Execution Corrections



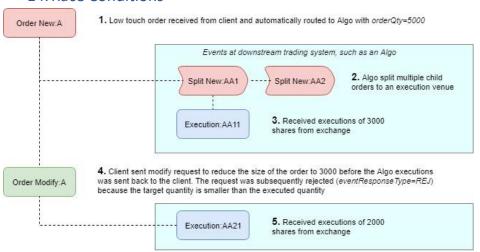
## 12. Facilitation Trading



## 13. Swap (hedging leg)



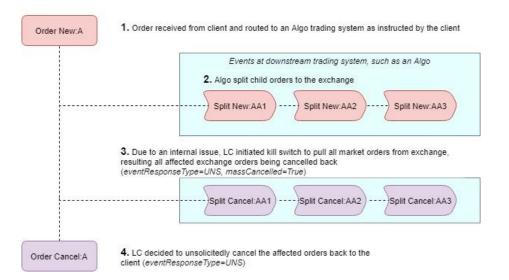
#### 14. Race Conditions





## 15. Outage / Mass Cancel

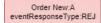




#### 16. Exceptions

#### Rejecting new client order request

Scenario A: Client order rejected right away



1. An order was received from a client in FIX and rejected right away by the LC with eventResponseType=REJ

Scenario B: Client order was accepted with ACK, but eventually cancelled back to client



1. An order was received from a client in FIX and accepted by the LC with eventResponseType=ACK Order was not immediately processed (e.g. queued to wait for market opens)



Order New:B

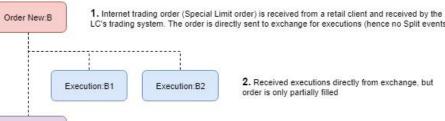
2. Later the order was released but rejected due to risk checks, LC unsolicitedly cancelled the order back to the client. This is recorded using Order Cancel event with eventResponseType=UNS



Order Cancel:B

1. A high-touch order received from a client at the trading desk electronically via FIX

2. Client called the trading desk to modify the order price on client's behalf in LC's system, this is recorded as a Modify event with eventResponseType=UNS, initiator=B (for unsolicited amend)



LC's trading system. The order is directly sent to exchange for executions (hence no Split events)

3. The unfilled part of the order is cancelled by exchange, this is recorded as a Cancel event with eventResponseType=UNS (for unsolicited cancel)