Appendix 2 – DS-OL Use Cases

Summary

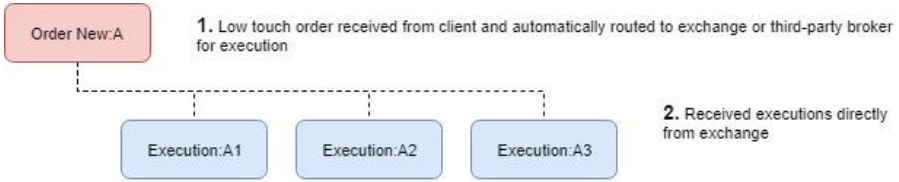
#	Use Cases	LT	HT/PT	Brief Descriptions
1	Low touch (without Algo)	✓		Low Touch orders from client (with and without splits)
2	Low touch (with Algo)	✓		Low Touch orders with Algo from client
3	High Touch/Program Trading		✓	High Touch/Program Trading orders using manual fills
4	High Touch/Program Trading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

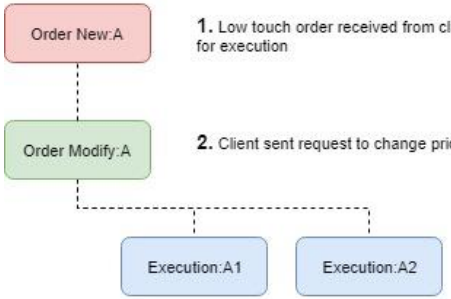
3. For the purpose of illustration, the order summary event is not depicted in some of the examples.

1. Low touch (without Algo)



1. Low touch order received from client and automatically routed to exchange or third-party broker for execution

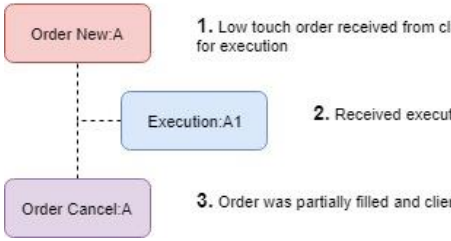
2. Received executions directly from exchange



1. Low touch order received from client and automatically routed to exchange or third-party broker for execution

2. Client sent request to change price

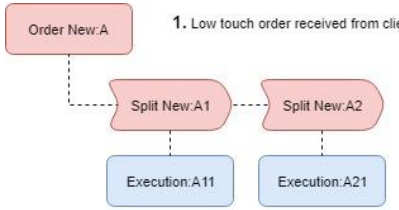
3. Received executions directly from exchange



1. Low touch order received from client and automatically routed to exchange or third-party broker for execution

2. Received executions directly from exchange

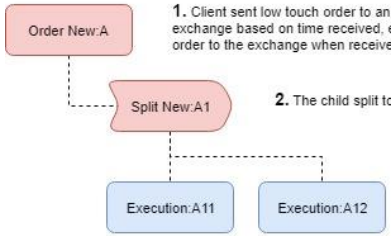
3. Order was partially filled and client sent request to cancel the order



1. Low touch order received from client with 5000 lots size

2. Due to exchange lot size limit, order is automatically split into 2 smaller orders (3000 & 2000 lots) before routed to exchange for execution

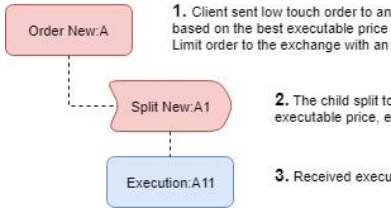
3. Received executions directly from exchange



1. Client sent low touch order to an LC with a service to derive the correct order type to the exchange based on time received, e.g. convert a normal Limit order from client to an Auction Limit order to the exchange when received during the morning auction period

2. The child split to exchange as Auction Limit order

3. Received executions directly from exchange

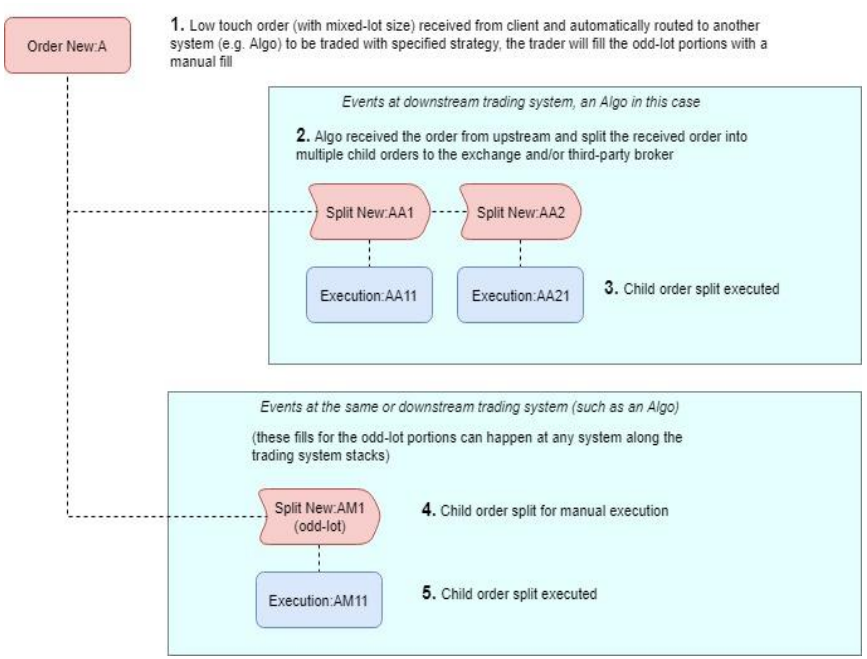


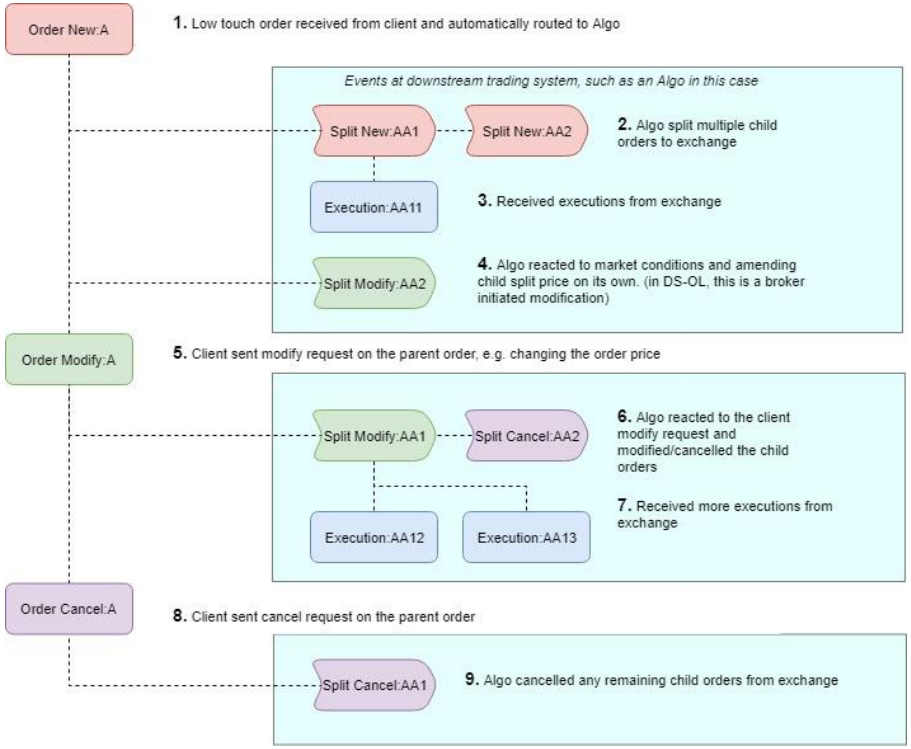
1. Client sent low touch order to an LC with a service to derive the order price to the exchange based on the best executable price on the market, e.g. convert a Market order from client to a Limit order to the exchange with an immediately executable price

2. The child split to exchange as Limit order at an immediately executable price, e.g. hit the best bid/ask price on the order queue

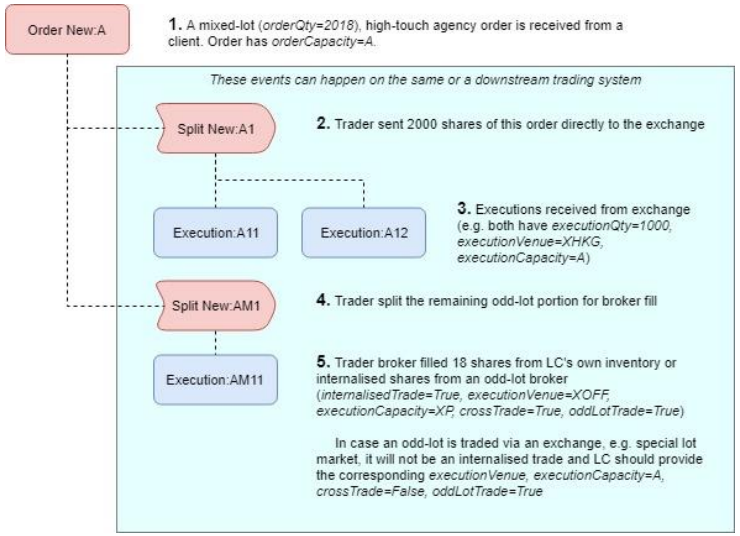
3. Received execution directly from exchange

2. Low touch (with Algo)

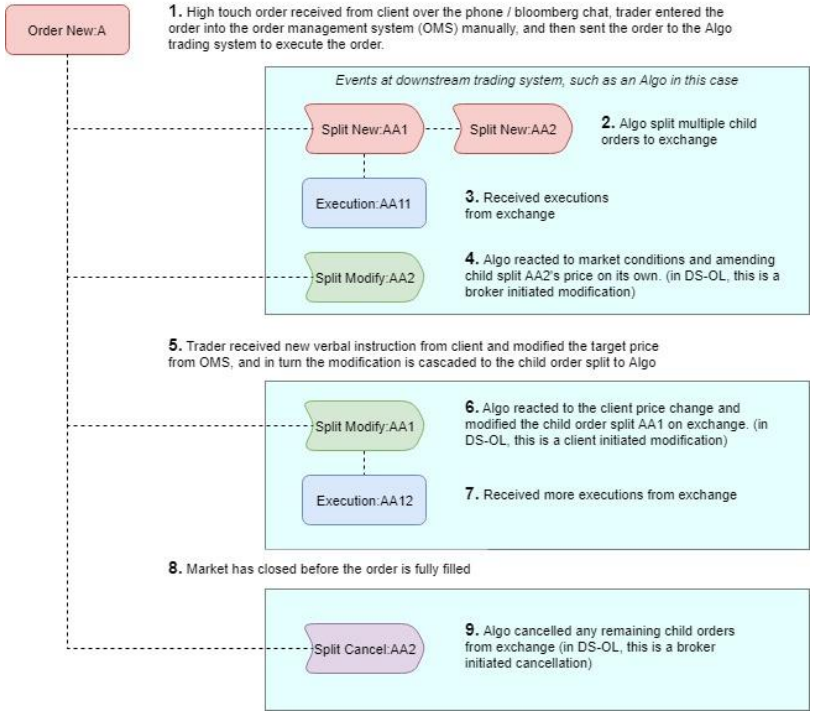




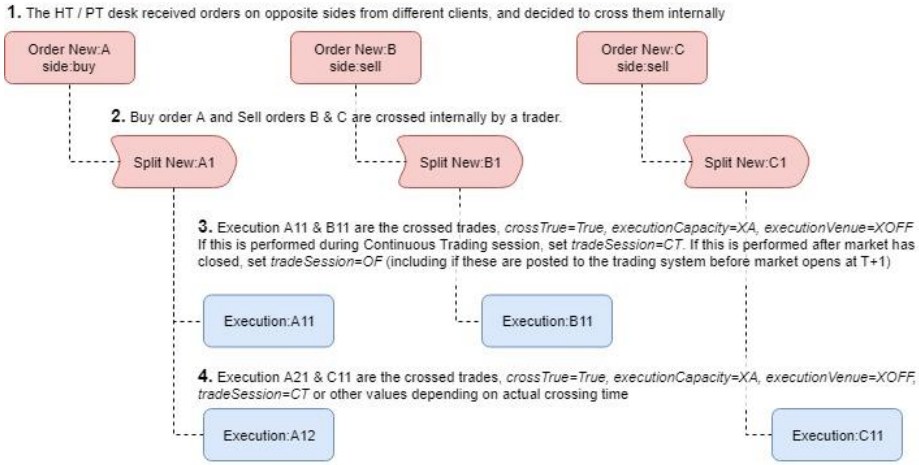
3. High Touch / Program Trading

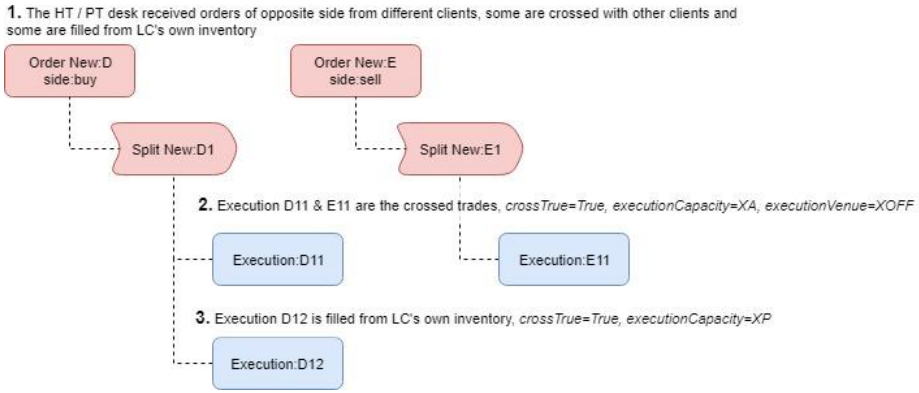


4. High Touch / Program Trading - Algo

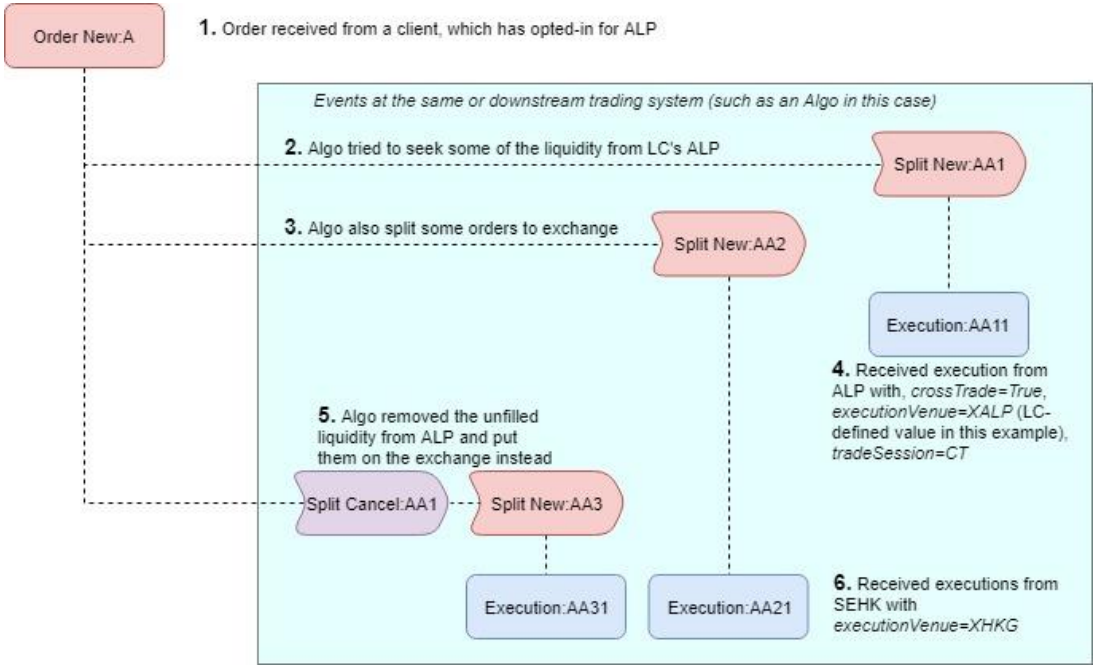


5. High Touch / Program Trading - Internal Crossing

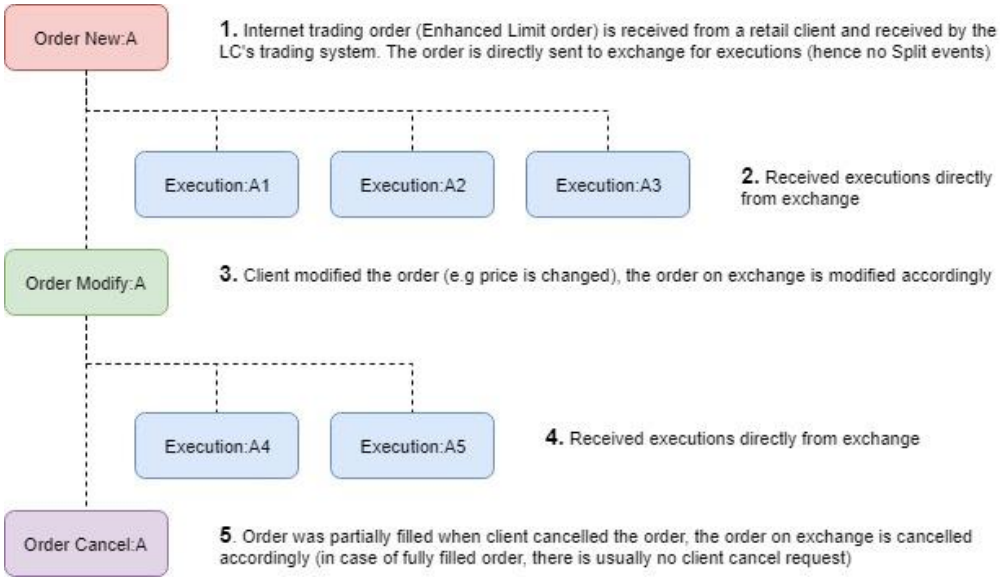




6. Alternative Liquidity Pool (ALP) Executions

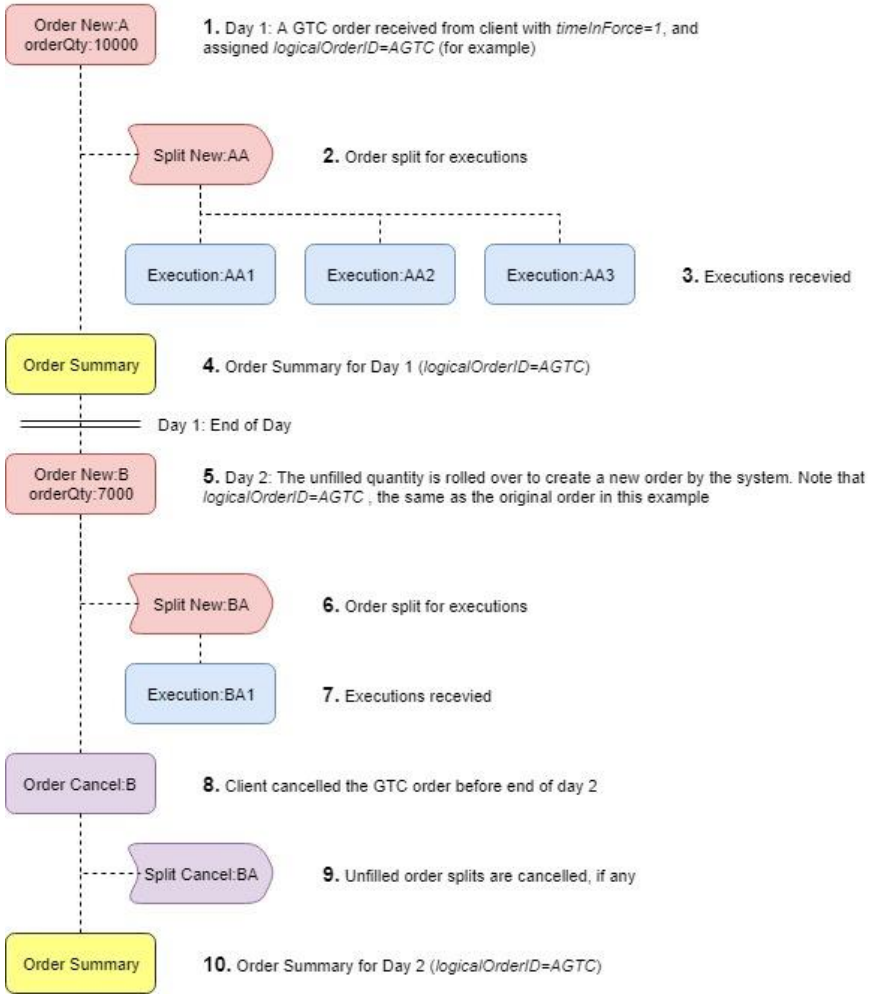


7. Internet Trading

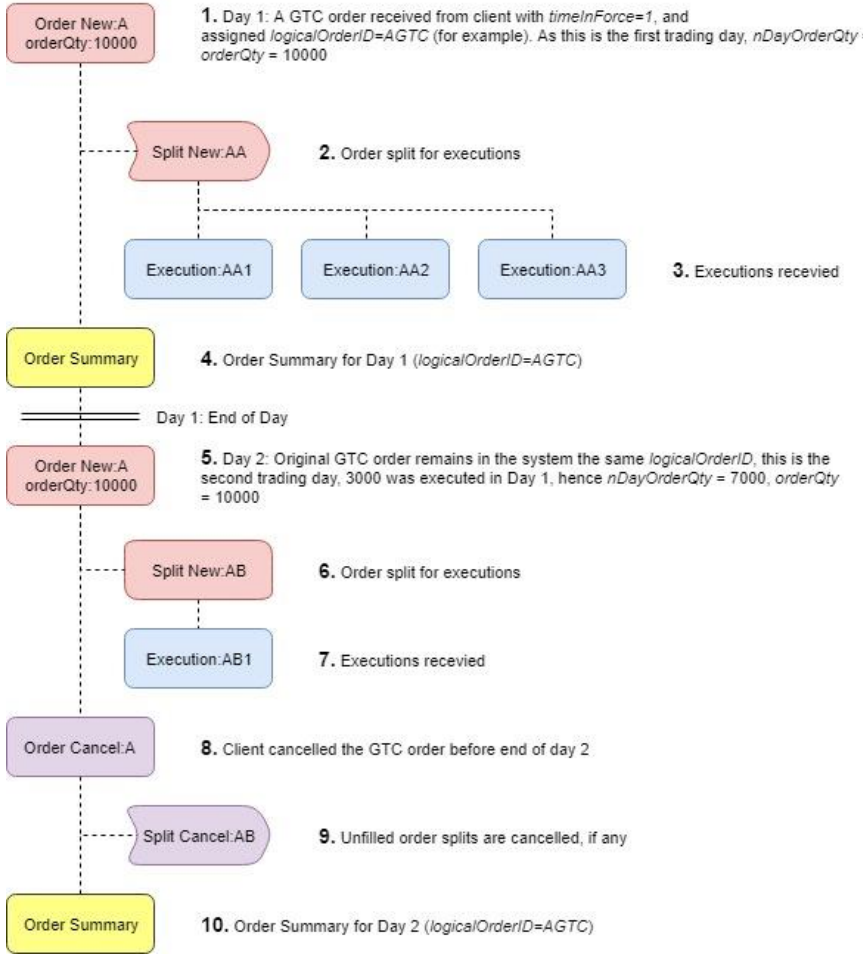


8. Multi-day Orders

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

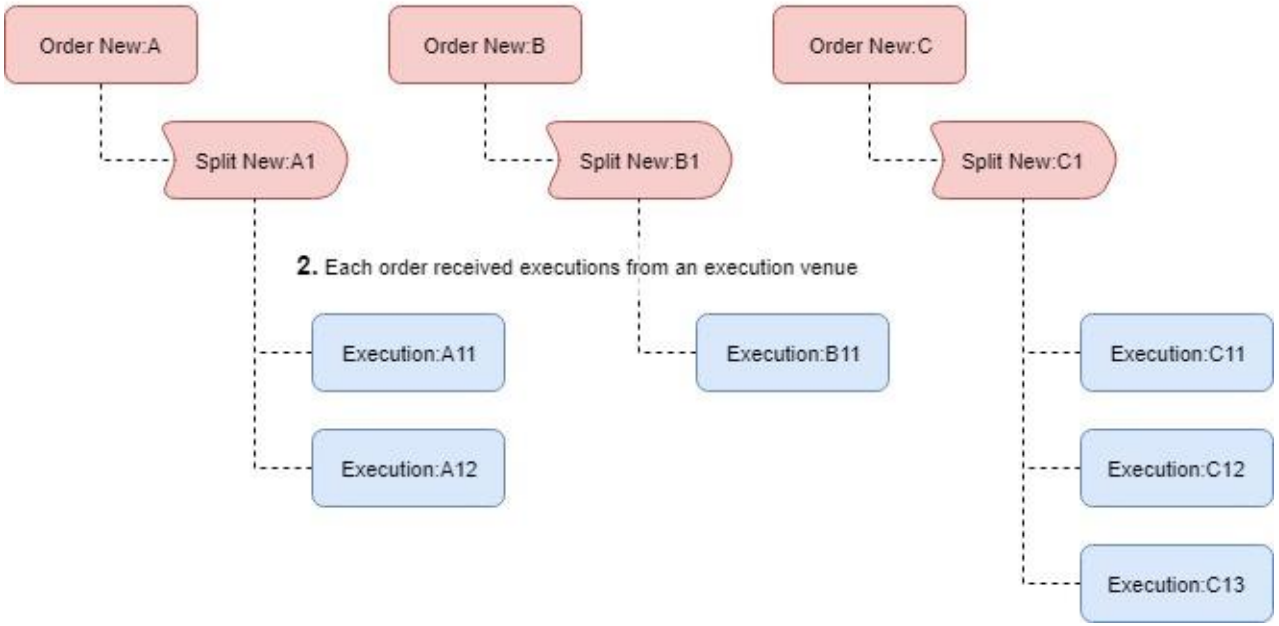


Case 2: LC's system will keep the GTC order in the system until it is cancelled

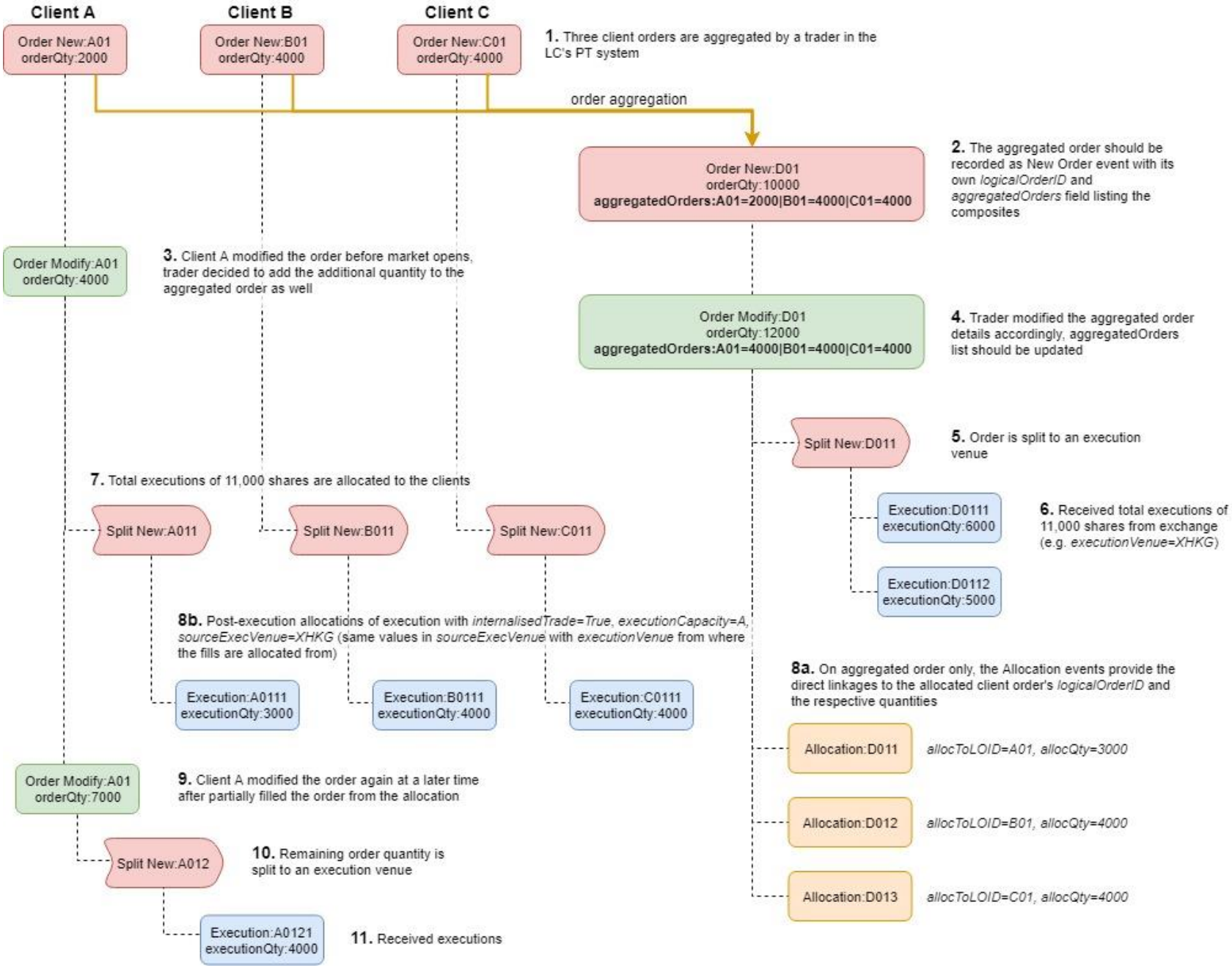


9. Basket Orders

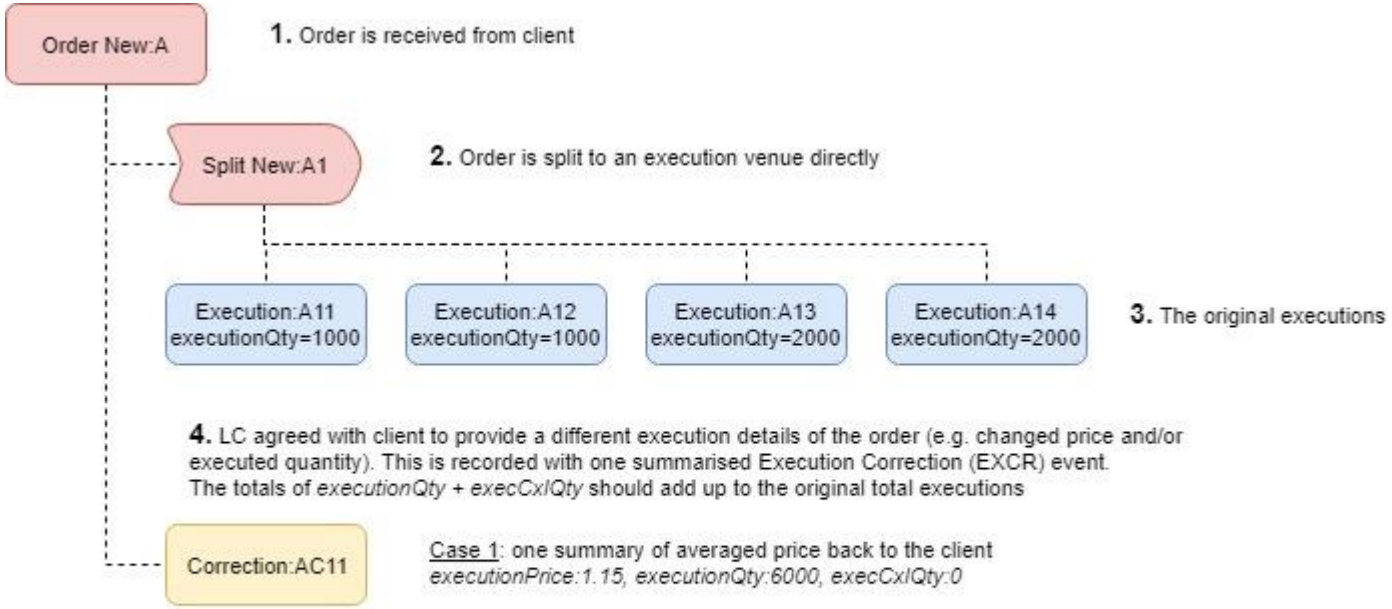
1. A basket of orders is received from a client to the PT desk. Orders can be traded in a group or individually depending on trader's decision. Collection ID (*collectionID*) is assigned as 'basket=BSK01' and each order has its own *logicalOrderID*



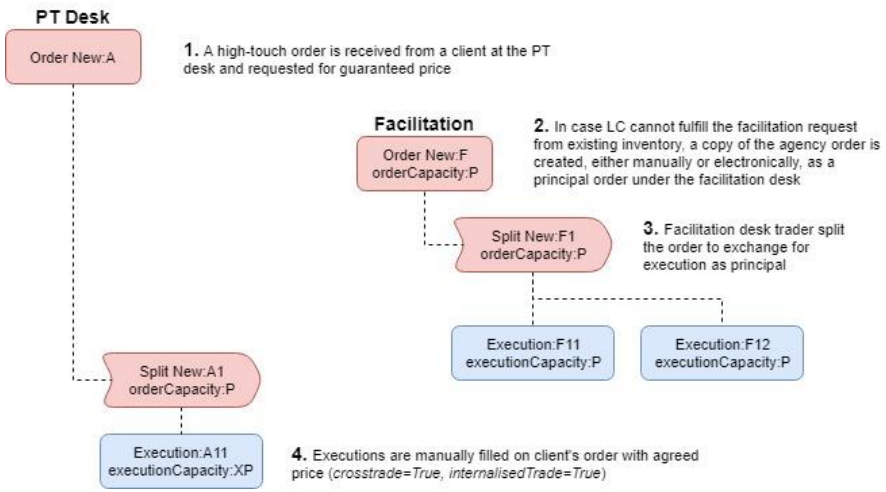
10. Aggregated Orders

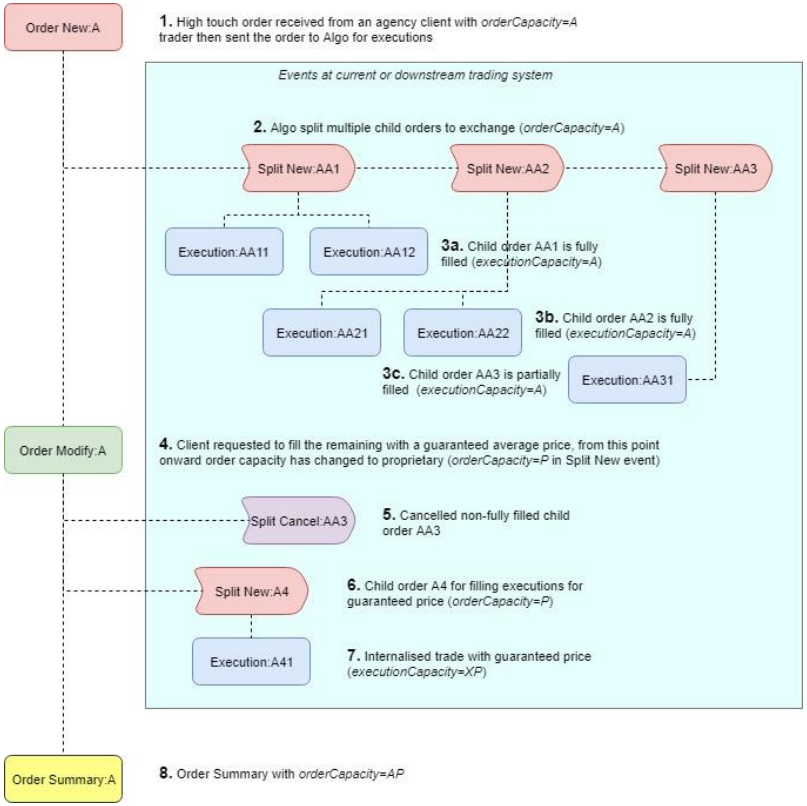


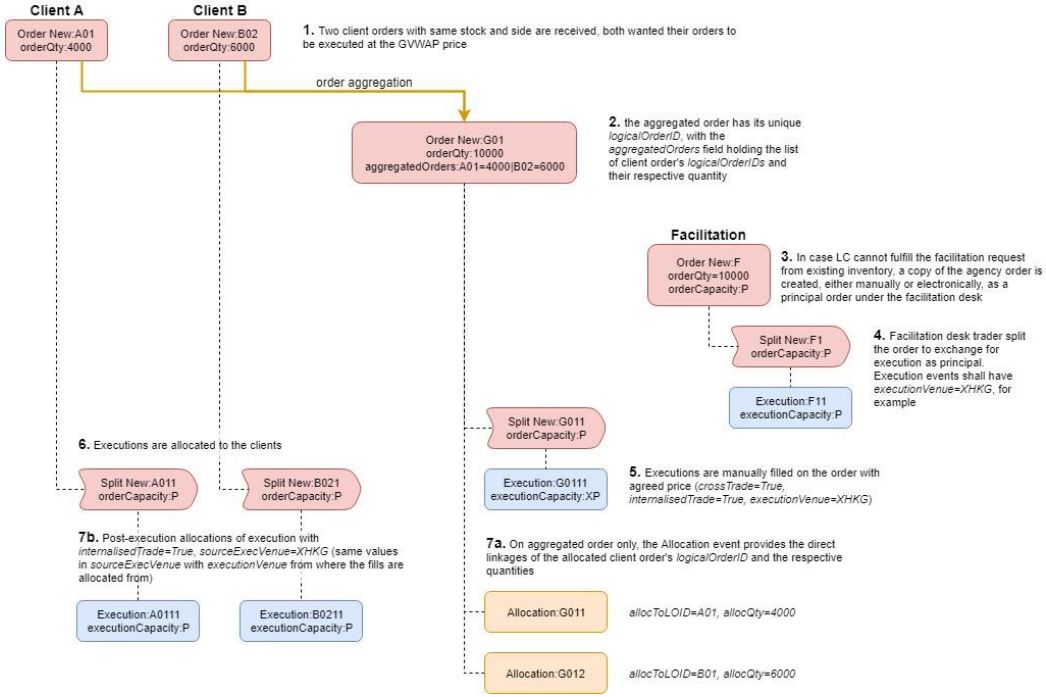
11. Execution Corrections



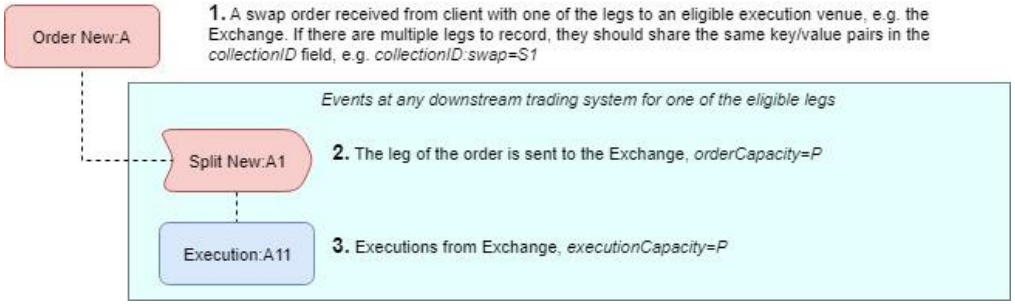
12. Facilitation Trading



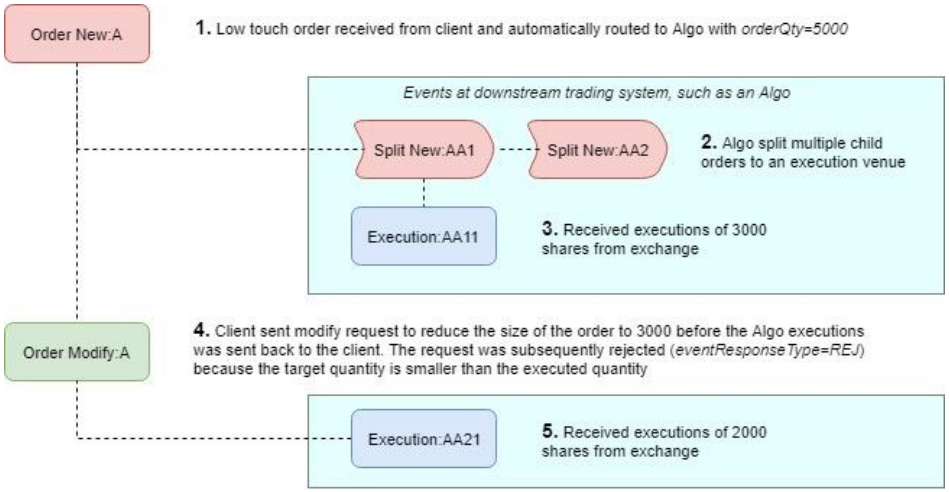




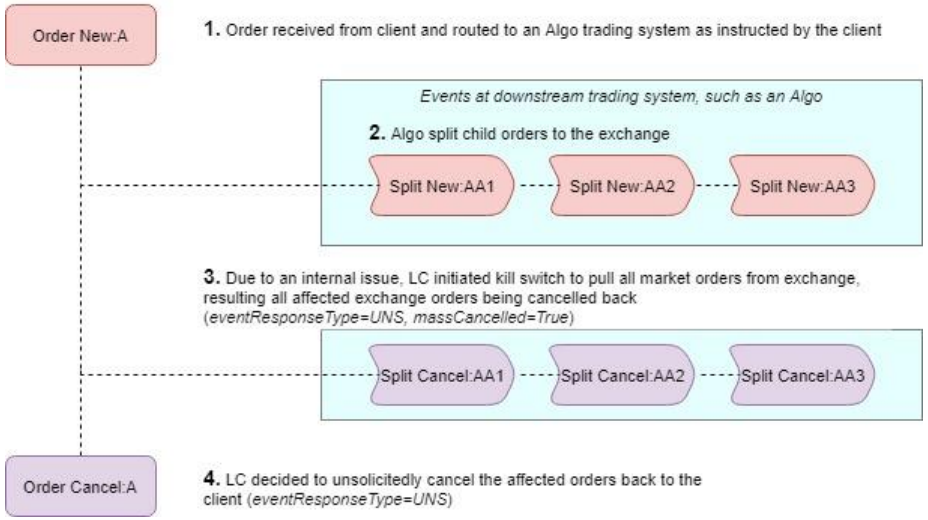
13. Swap (hedging leg)



14. Race Conditions



15. Outage / Mass Cancel



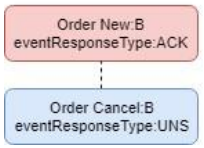
16. Exceptions

Rejecting new client order request

Scenario A: Client order rejected right away

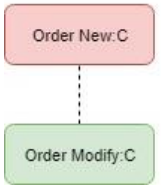
1. An order was received from a client in FIX and rejected right away by the LC with *eventResponseType=REJ*

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



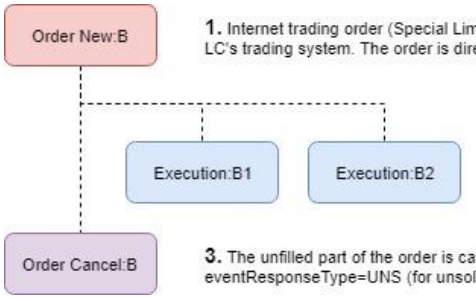
1. An order was received from a client in FIX and accepted by the LC with *eventResponseType=ACK* Order was not immediately processed (e.g. queued to wait for market opens)

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*



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)



1. Internet trading order (Special Limit order) is received from a retail client and received by the LC's trading system. The order is directly sent to exchange for executions (hence no Split events)

2. Received executions directly from exchange, but order is only partially filled

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