SUBSTITUTE SHEET (RULE 26)

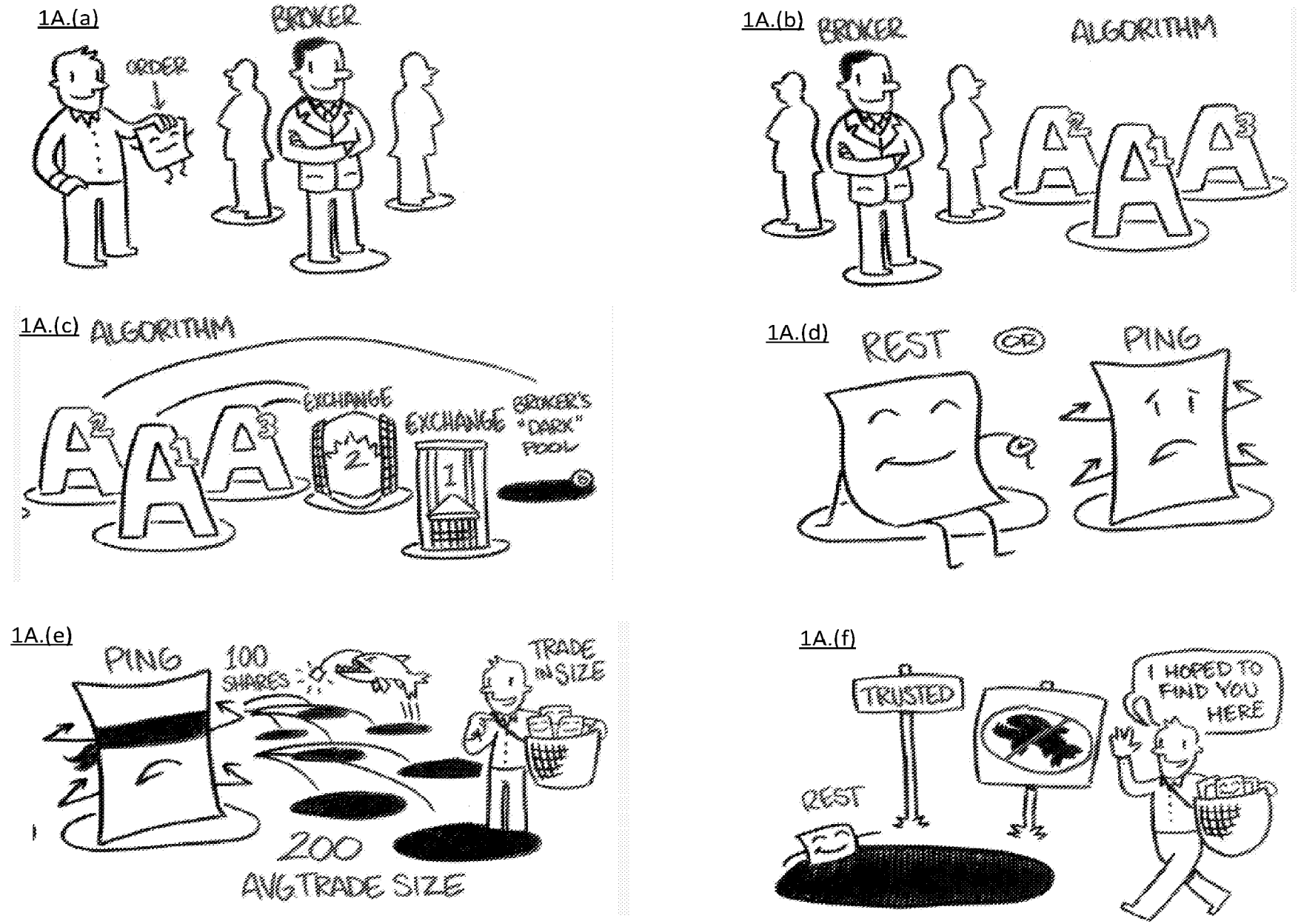


FIGURE 1A

TLL Example: Reallocation via TLL Portal

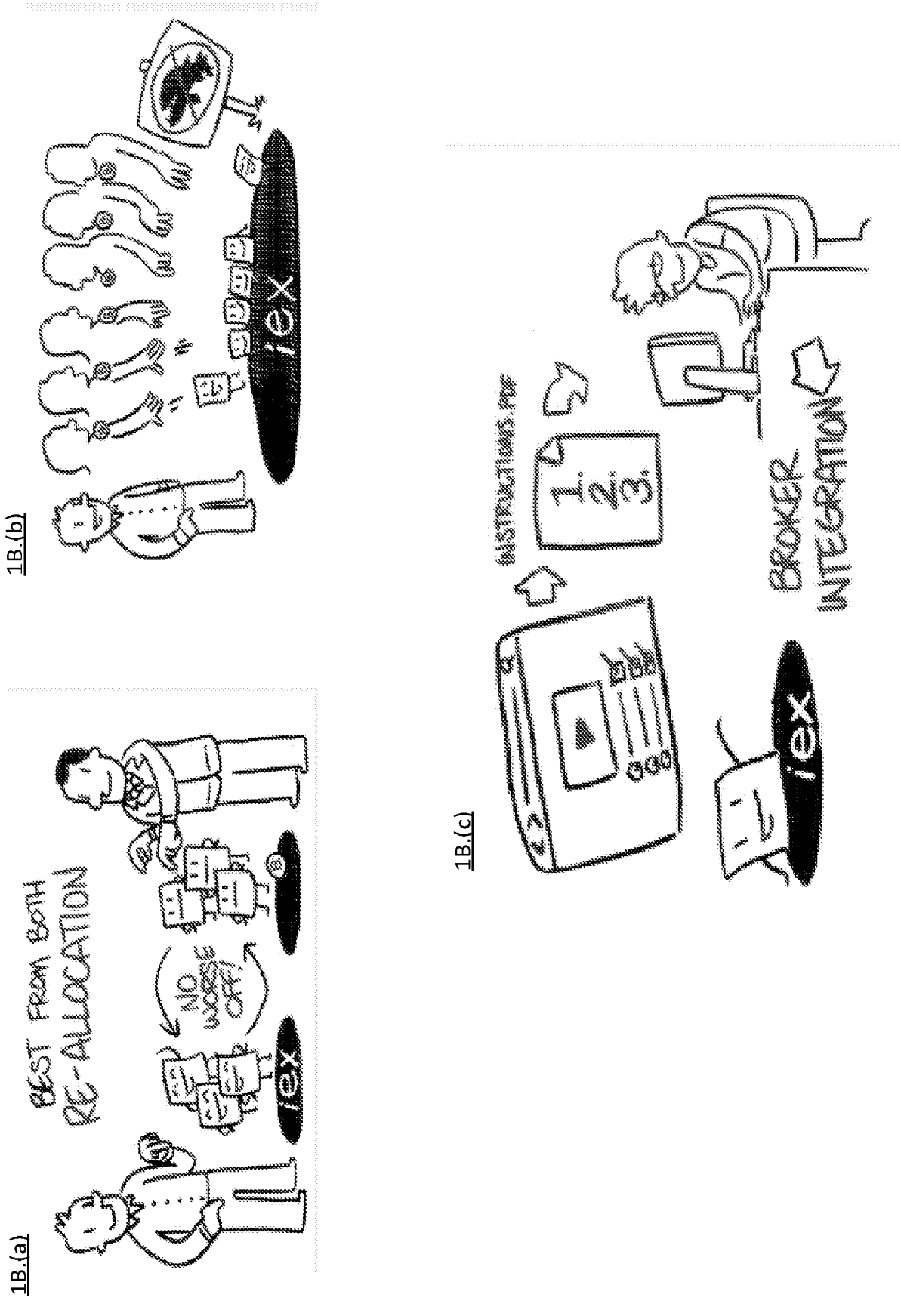
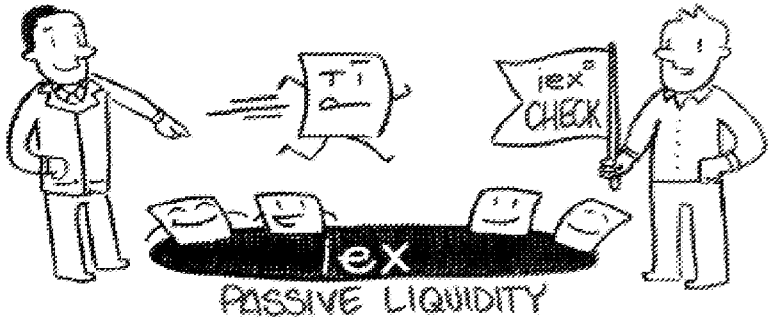


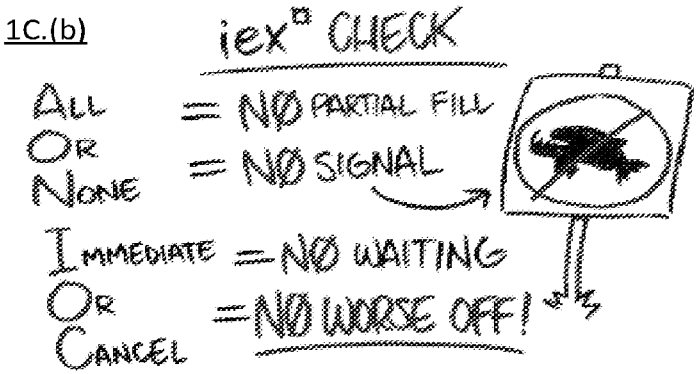
FIGURE 1B TLL Example: Reallocation via TLL Portal

SUBSTITUTE SHEET (RULE 26)

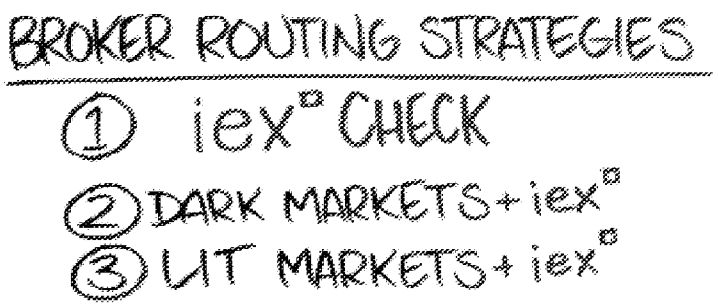
1C.(a)



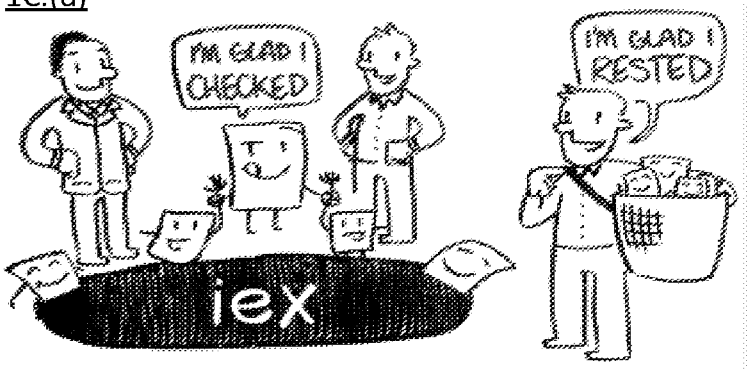
1C.(b)



1C.(c)



1C.(d)



1C.(e)

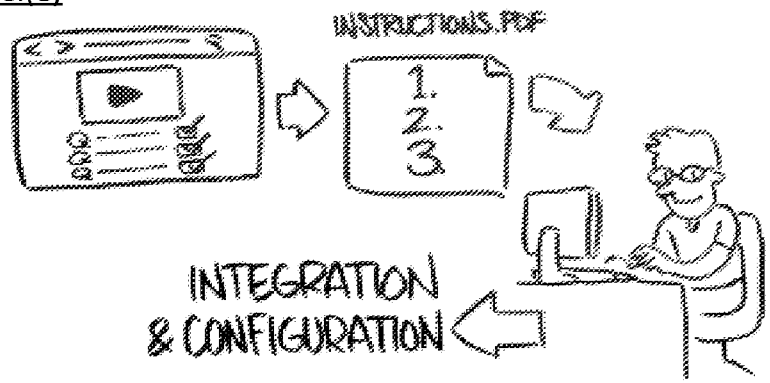


FIGURE 1C **TLL Example: Re-Check via TLL Portal**

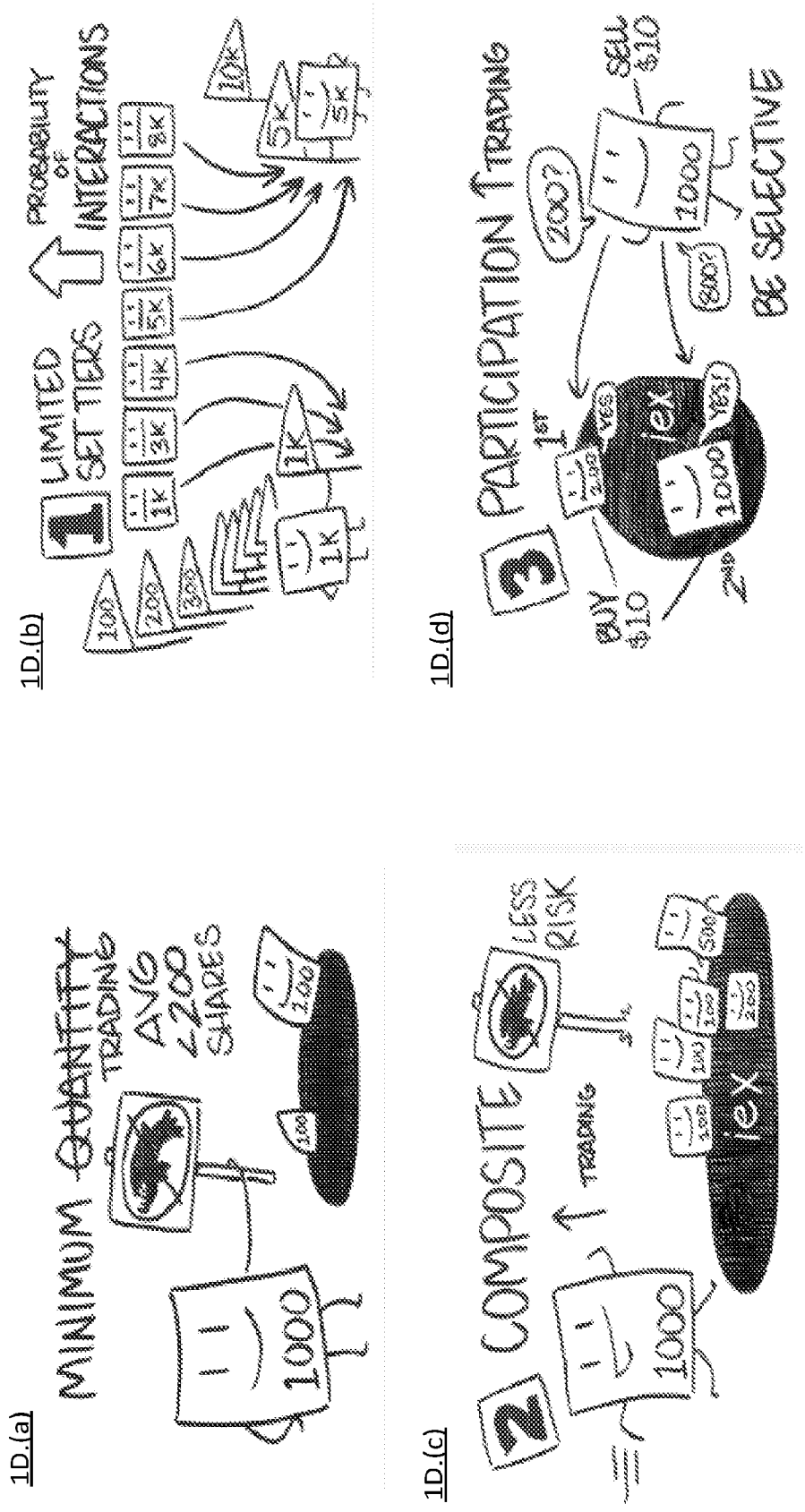


FIGURE 1D

TLL Example: Minimum Quantity via TLL Portal

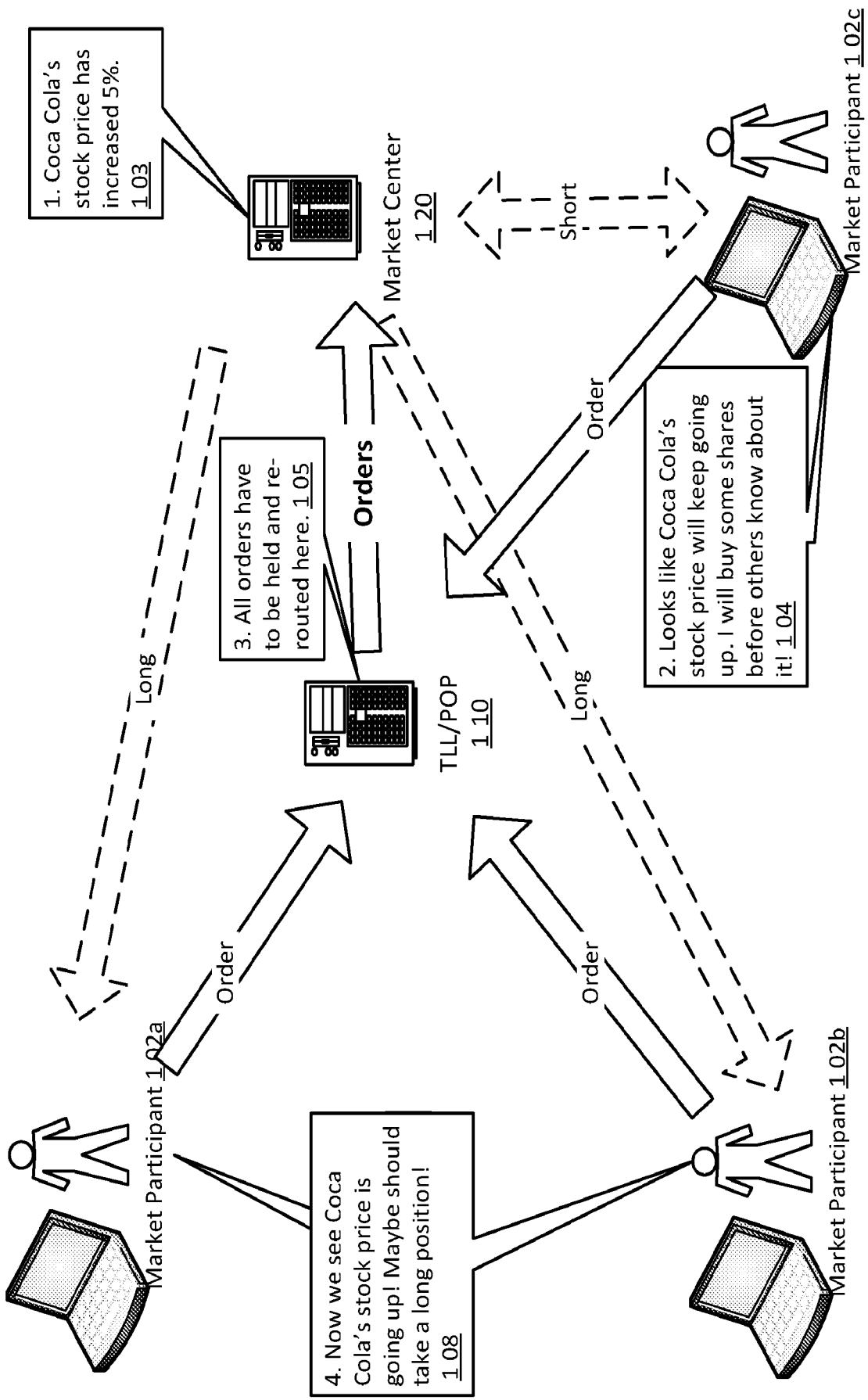


FIGURE 1E

TLL Example: Point-of-Presence Order Delaying

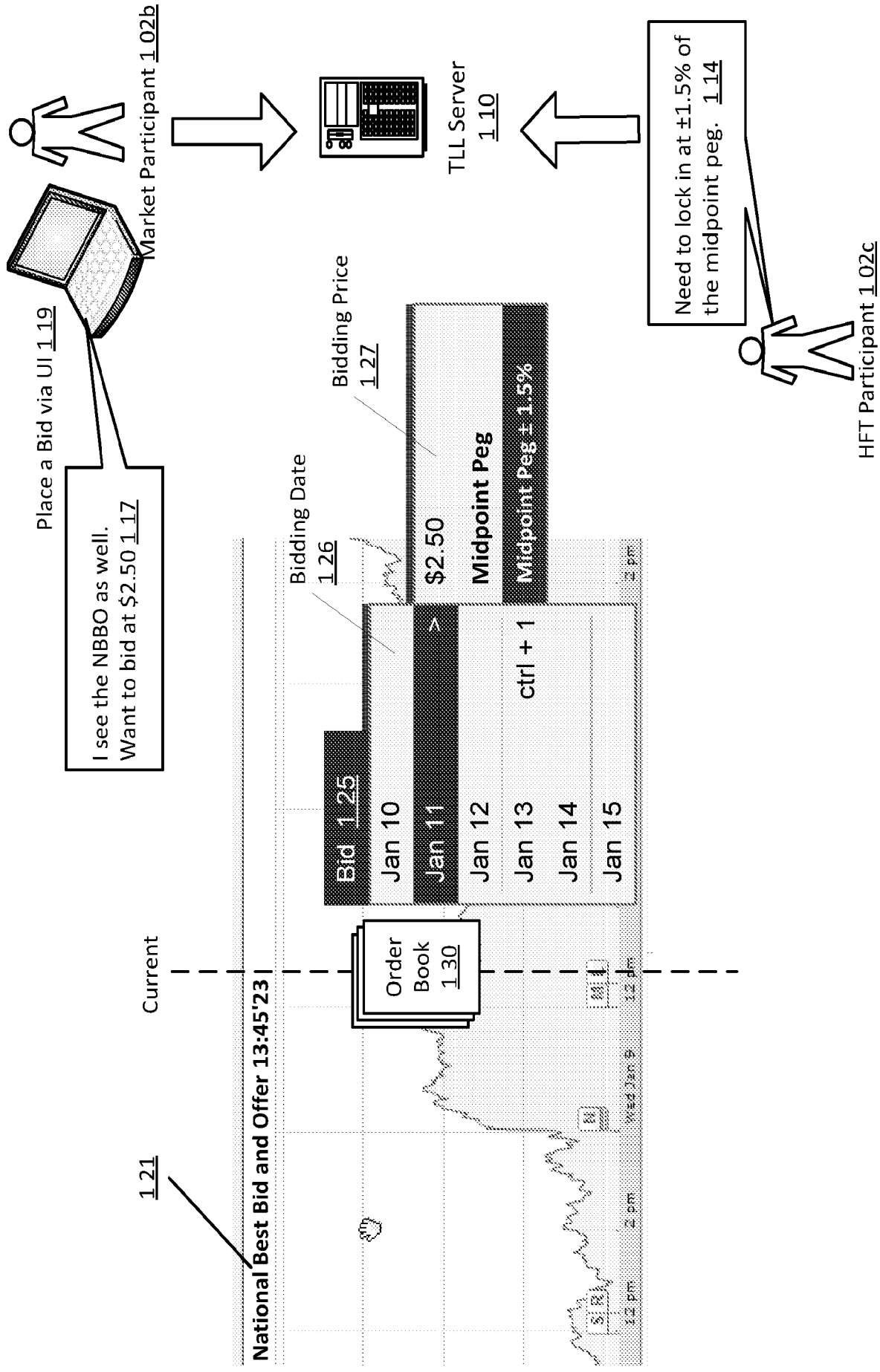


FIGURE 1F

TLL Example: Reducing Order Book Arbitrage

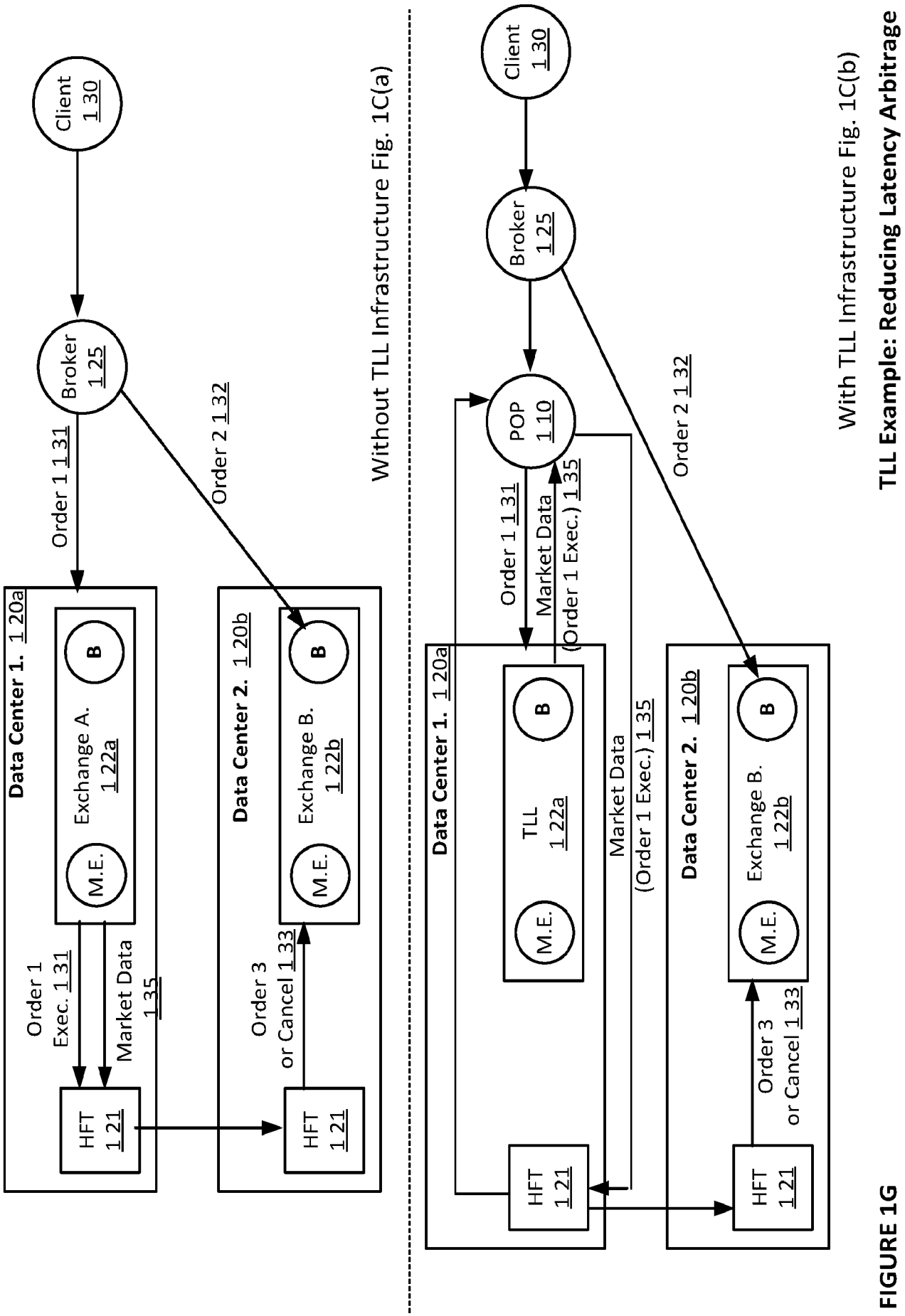


FIGURE 1G

TLL Example: Reducing Latency Arbitrage

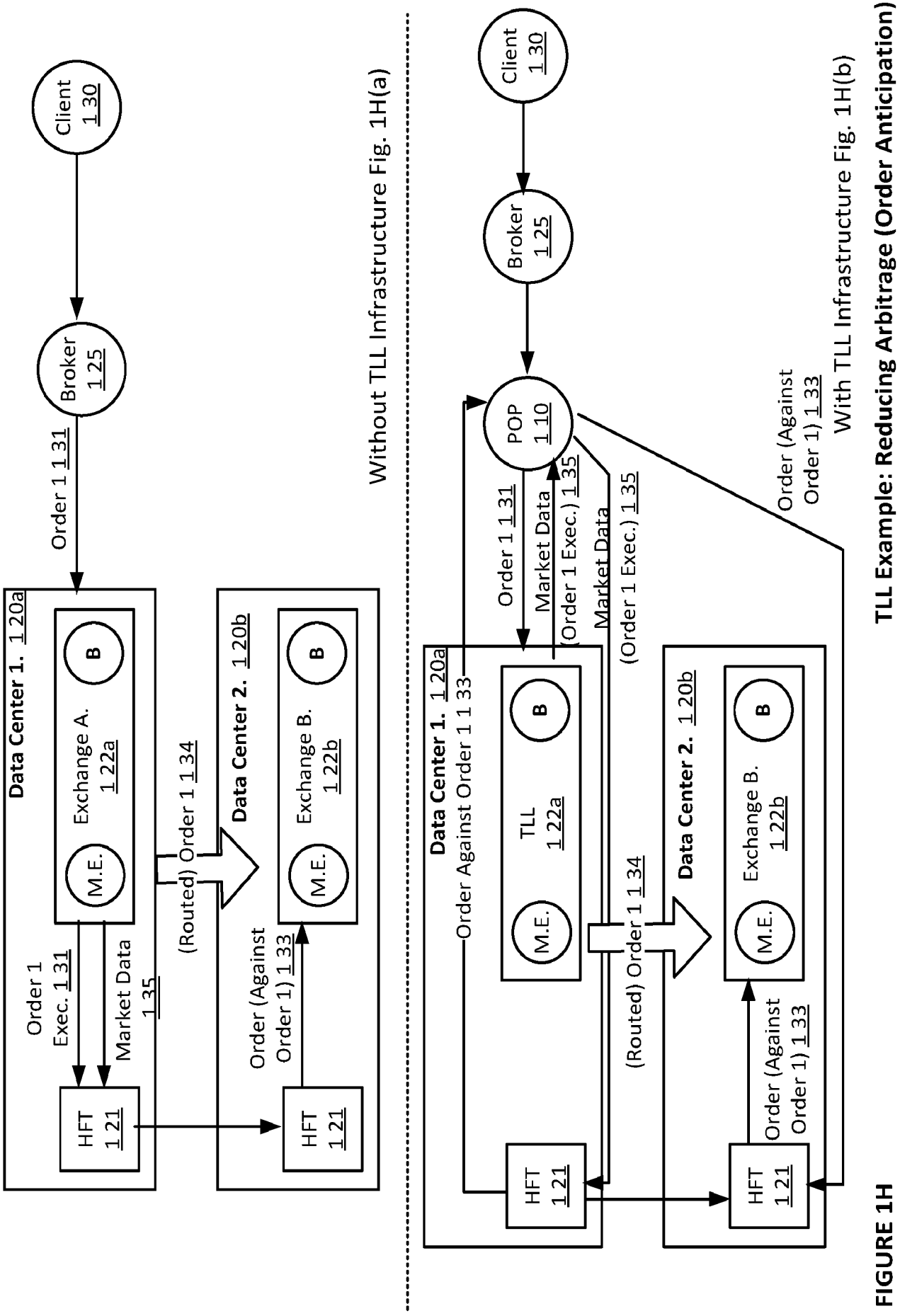


FIGURE 1H

TLL Example: Reducing Arbitrage (Order Anticipation)

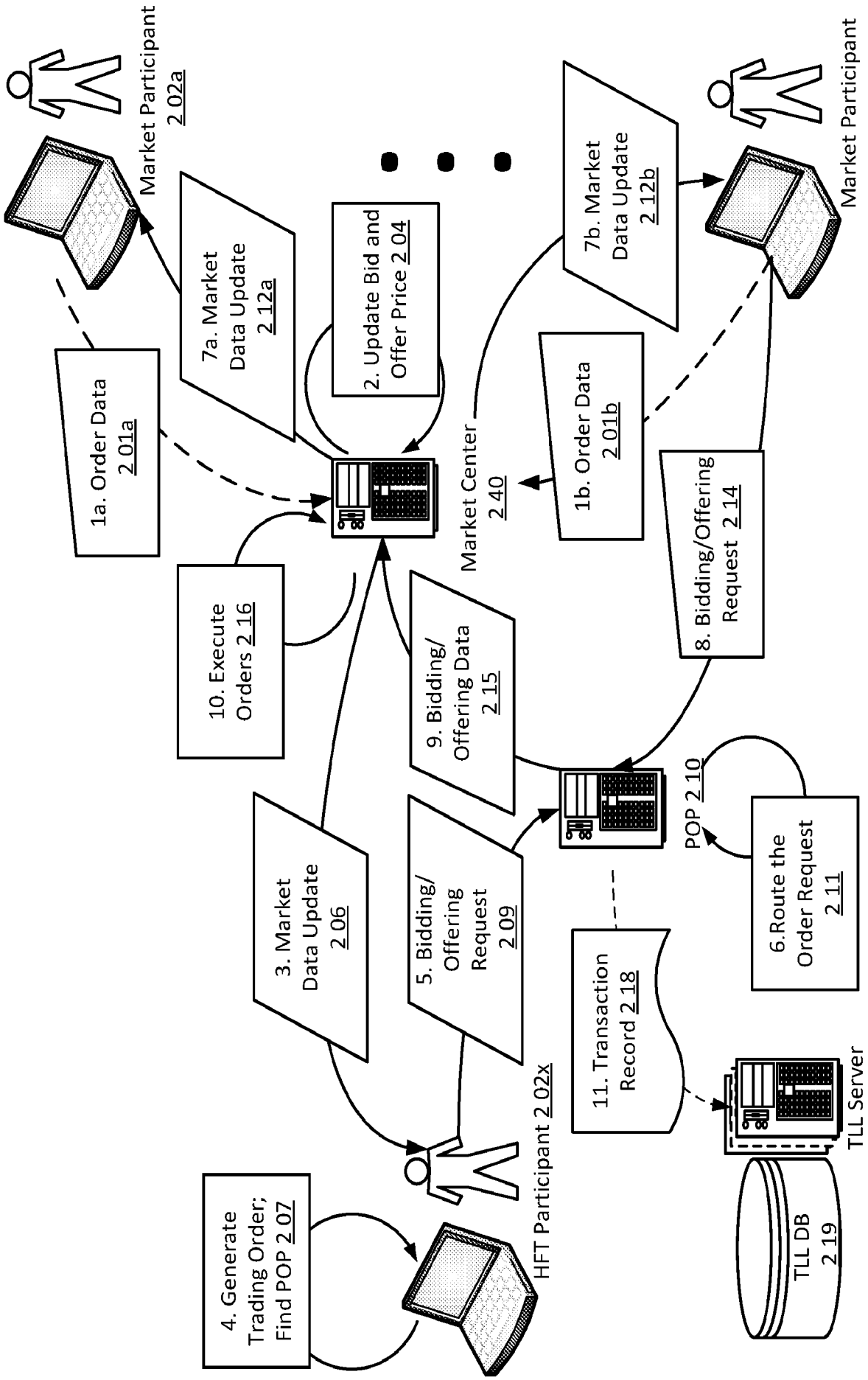
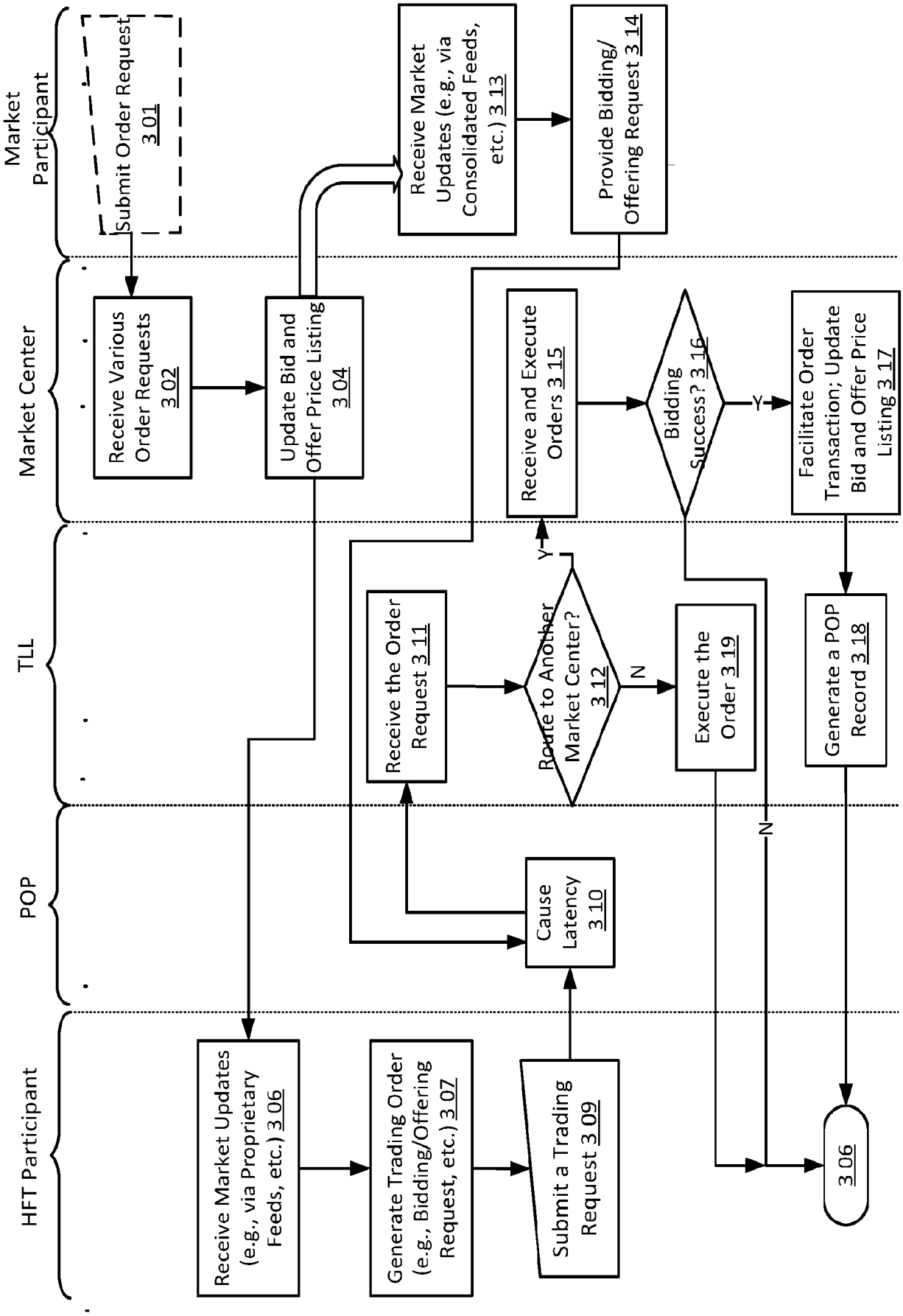


FIGURE 2 Example Data Flow: TLL Point-of-Presence (POP)



Example TLL Logic Flow: Reducing Arbitrage

FIGURE 3

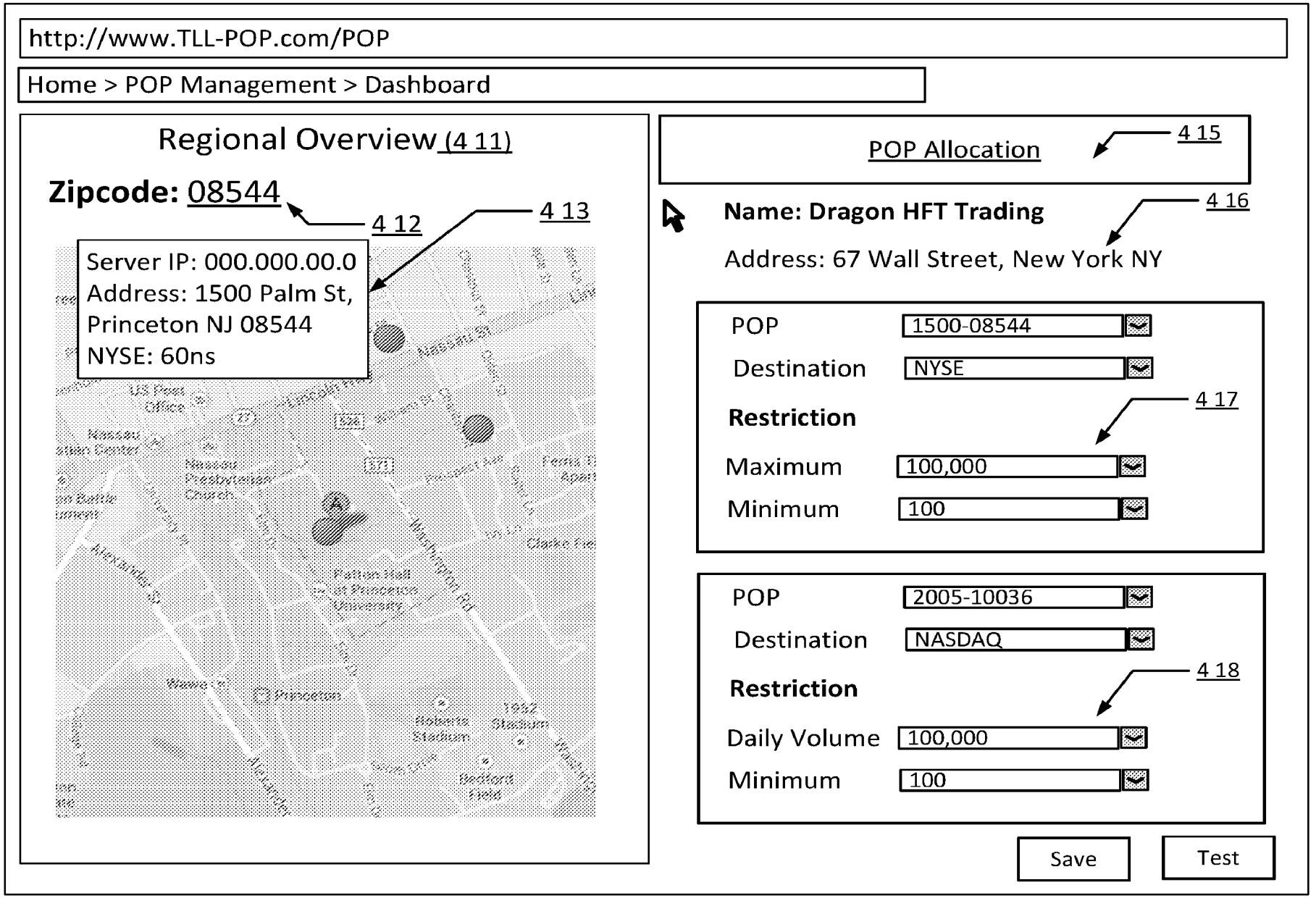


FIGURE 4A

Example TLL UI: POP Routing

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SUBSTITUTE SHEET (RULE 26)

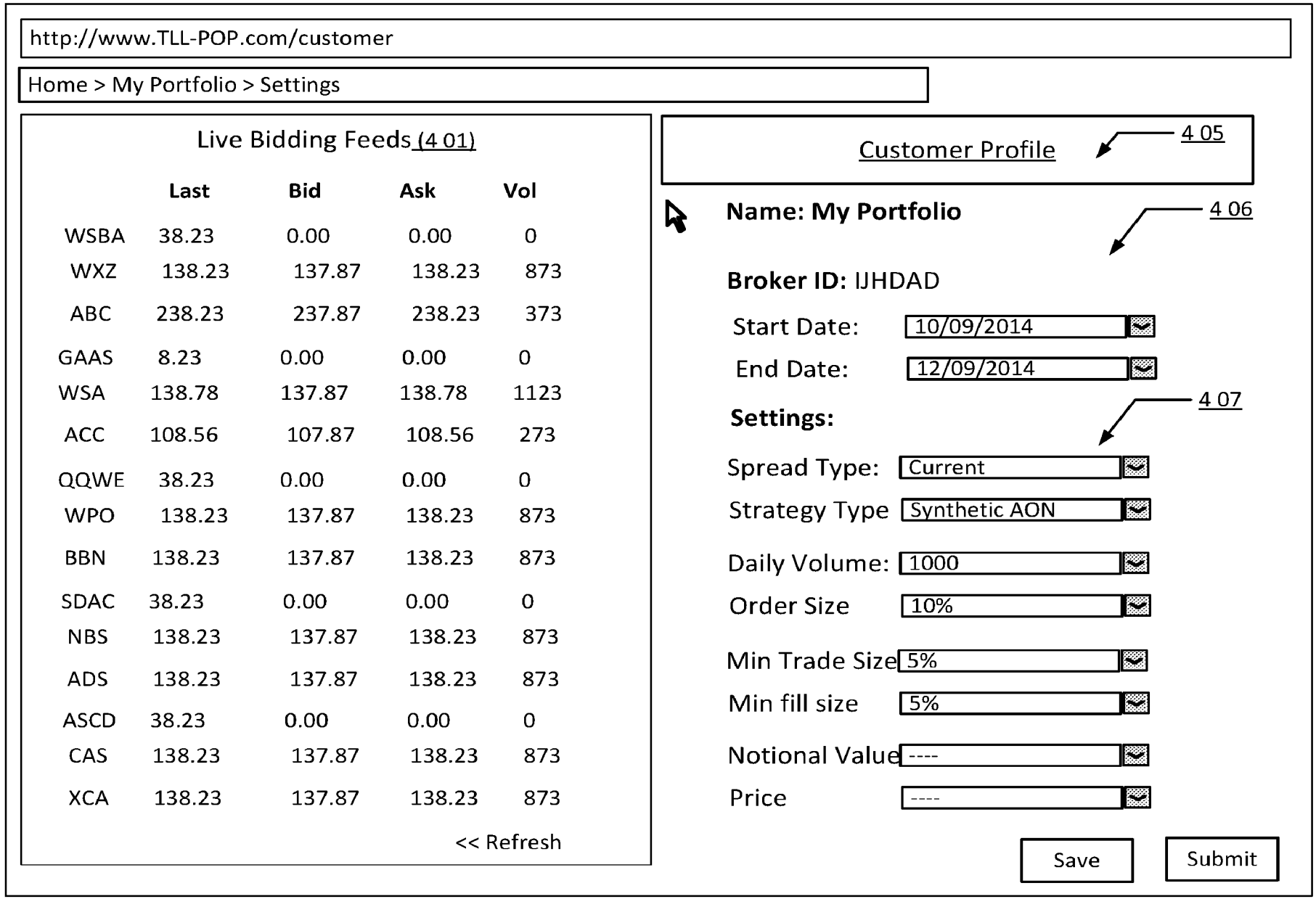
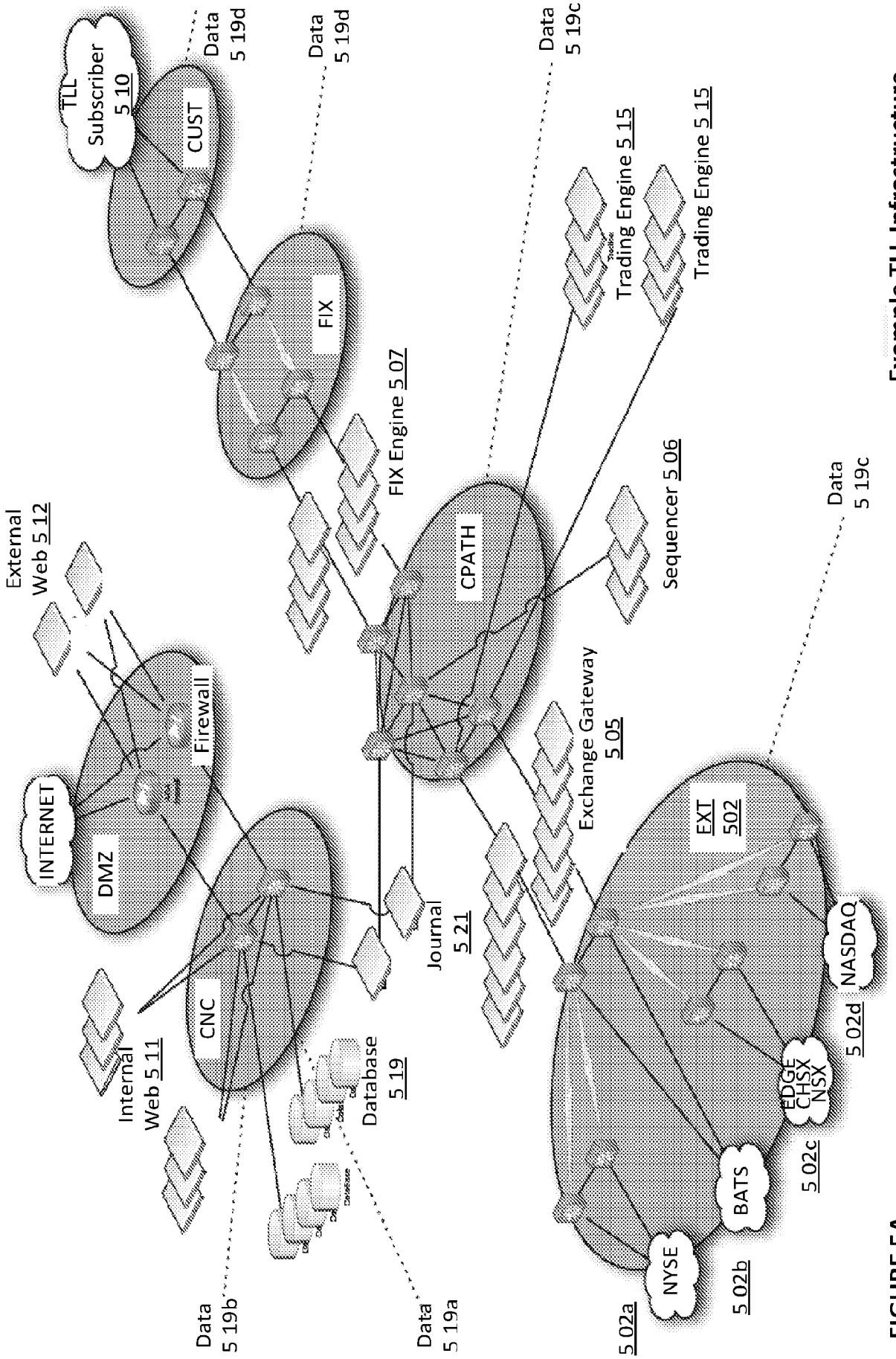


FIGURE 4B **Example TLL UI: Customer Settings**



Example TLL Infrastructure

FIGURE 5A

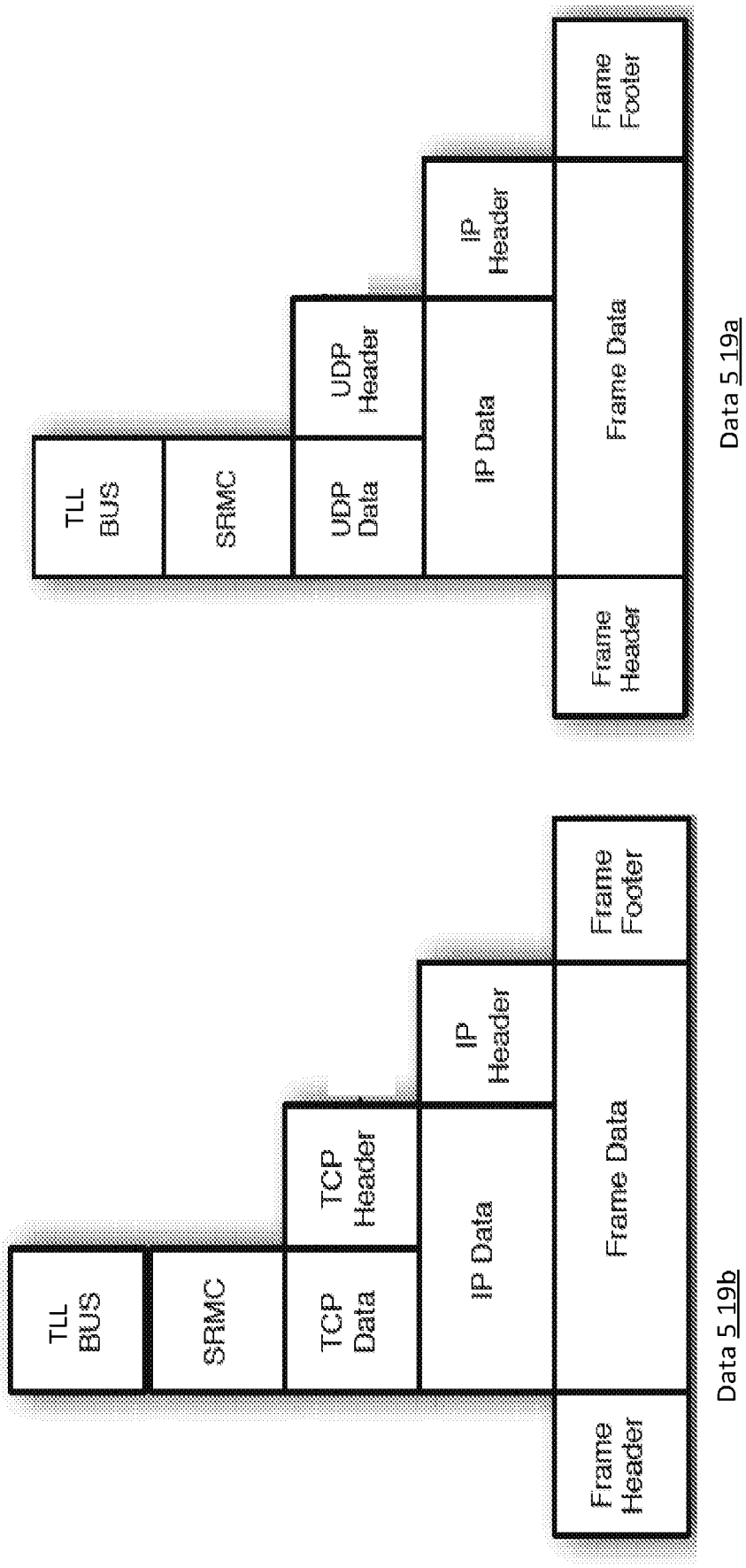


FIGURE 5B Example TLL Data Packet

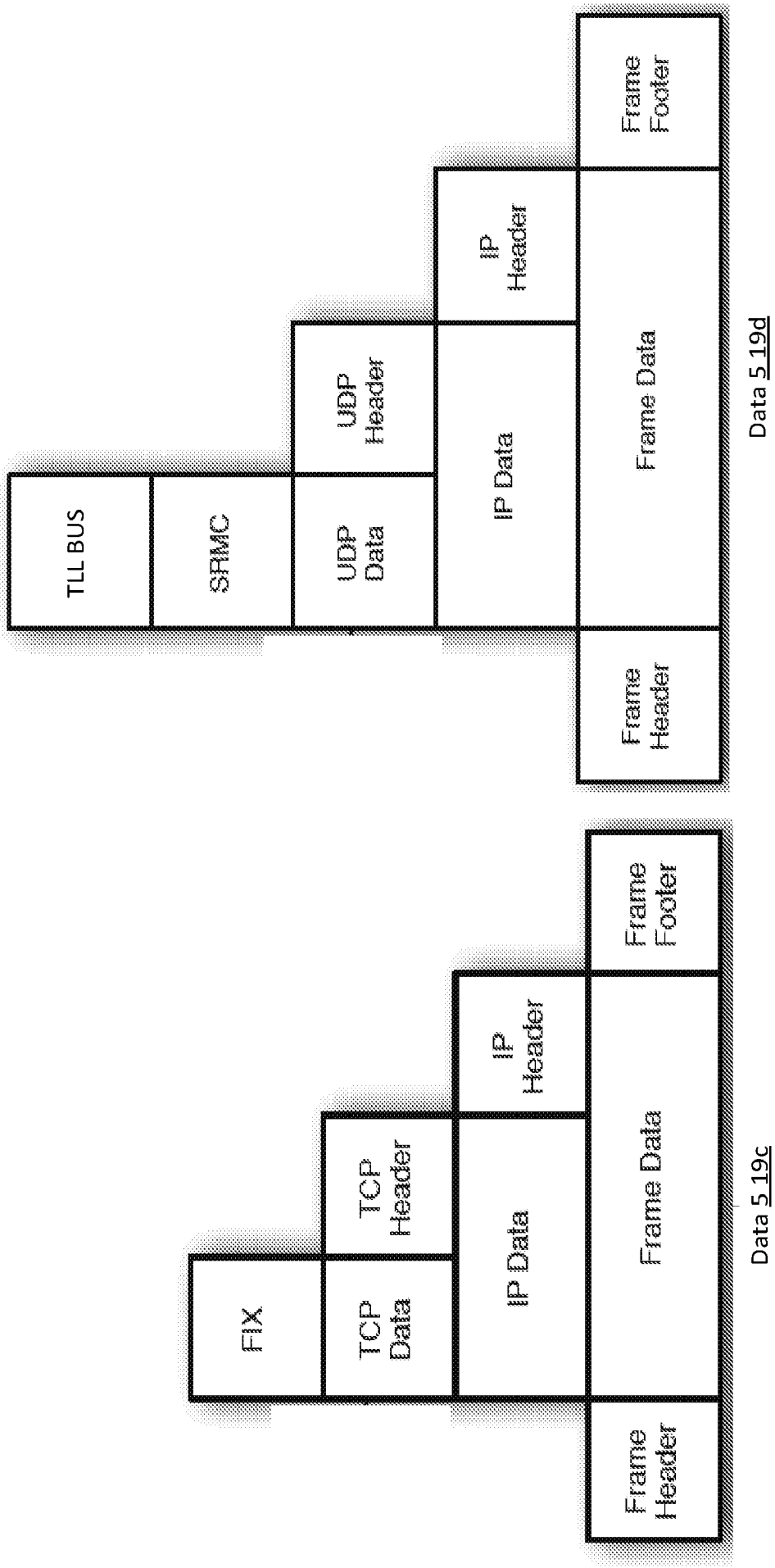


FIGURE 5C Example TLL Data Packet

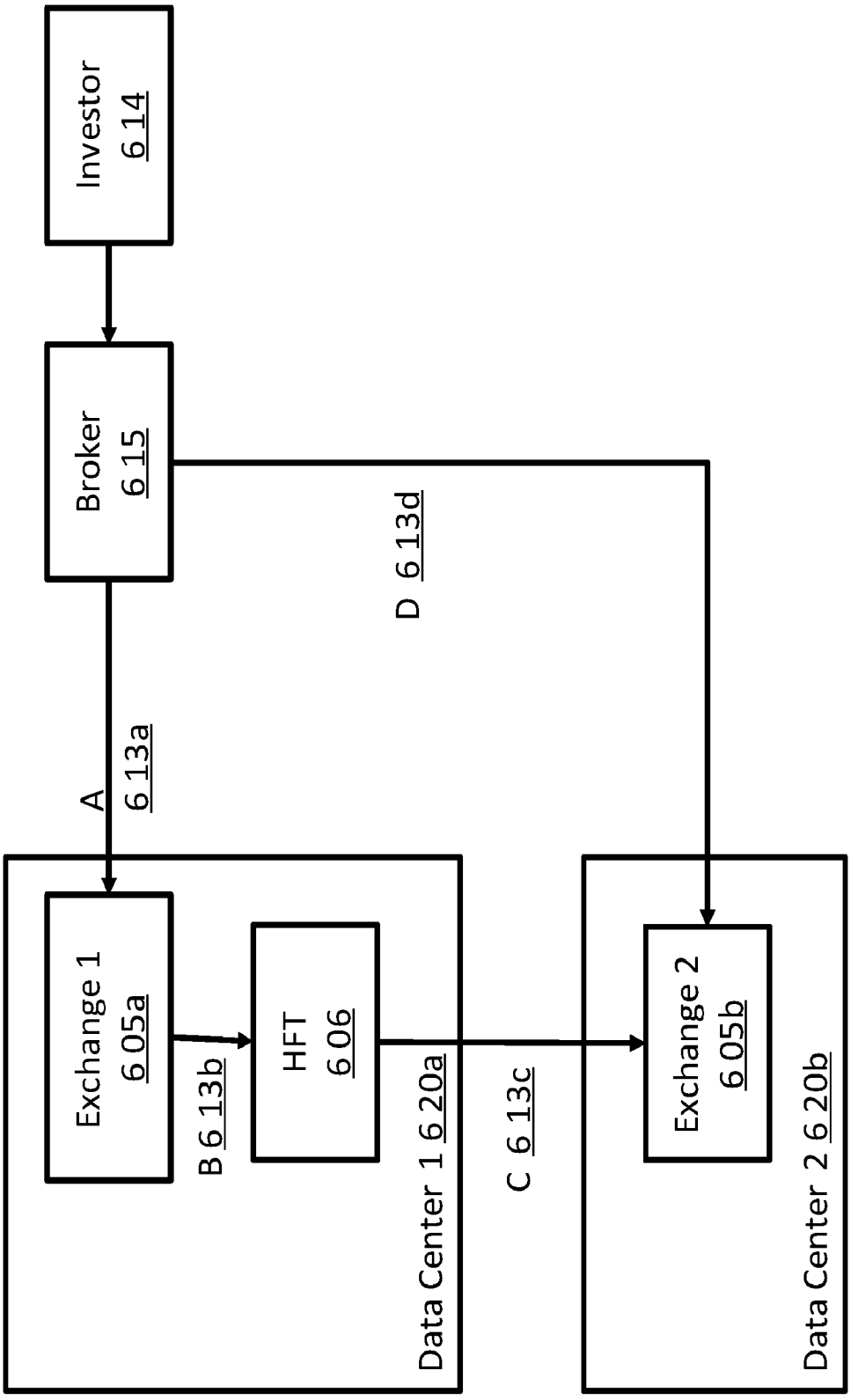


FIGURE 6A

Example TLL Diagram: Latency Arbitrage vs. Broker SOR

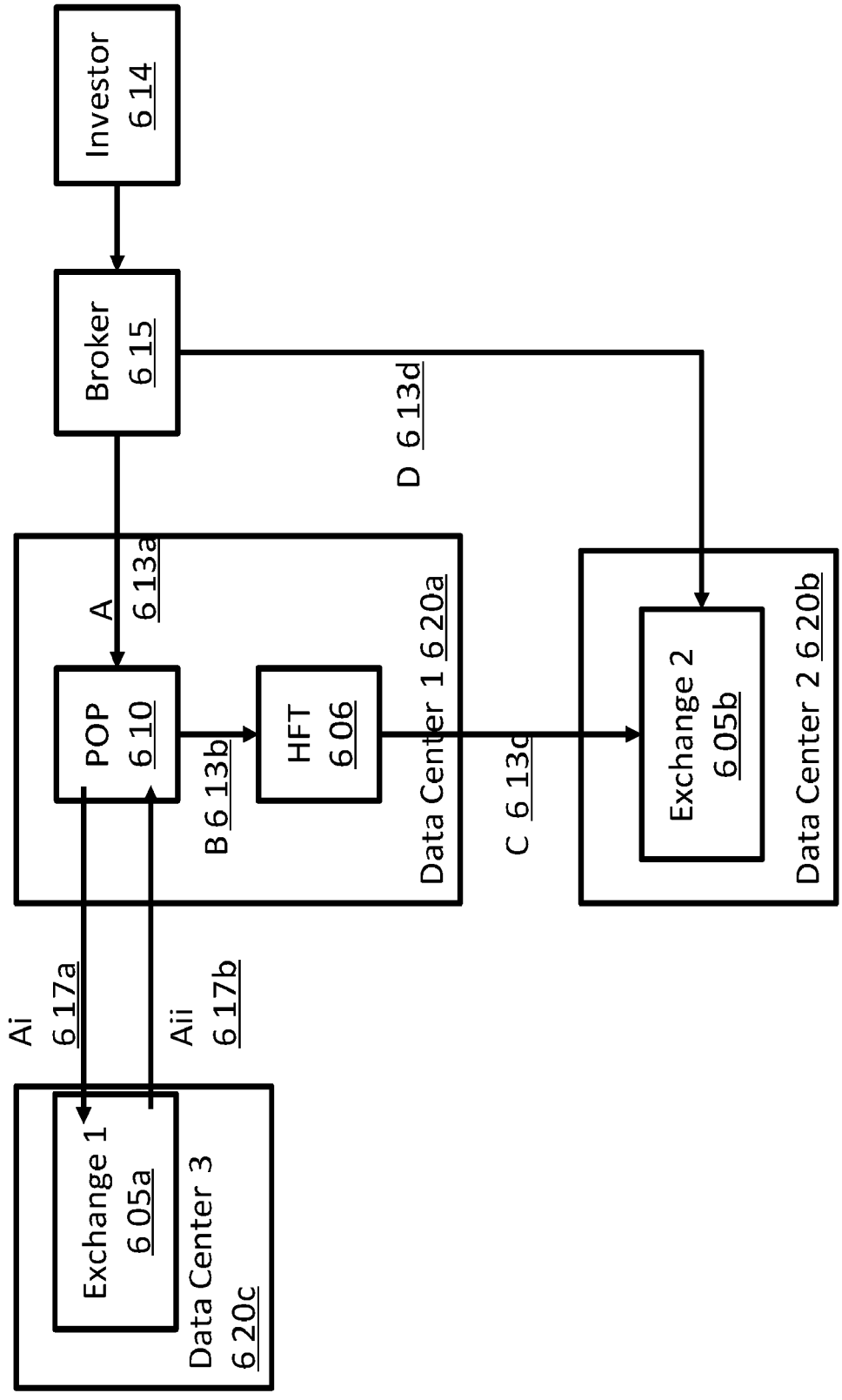
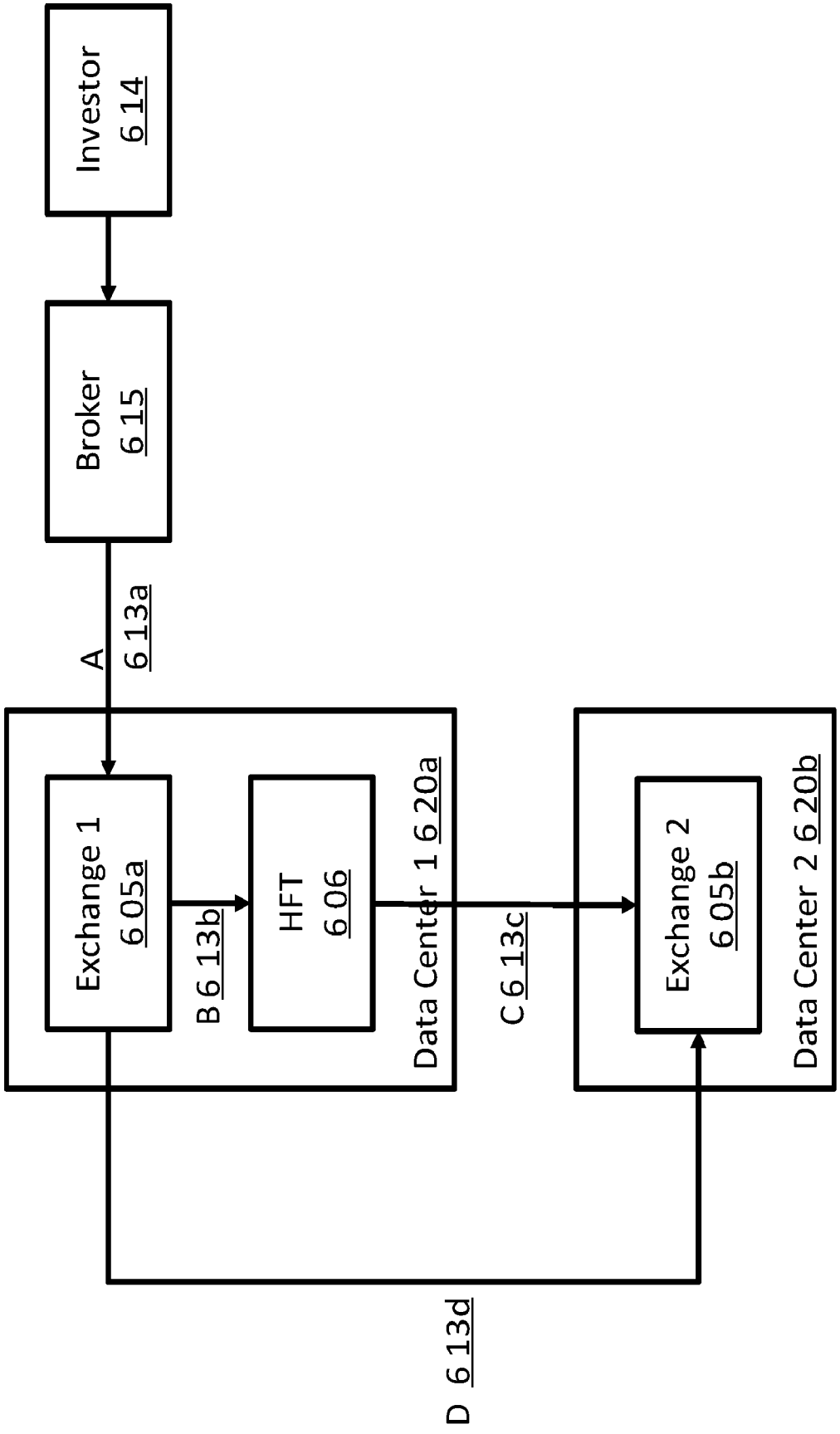


FIGURE 6B TLL Example:Latency Arbitrage vs. Broker Smart Order Routers Inoculated with POP



TLL Example:Latency Arbitrage vs. Exchange SOR

FIGURE 6C

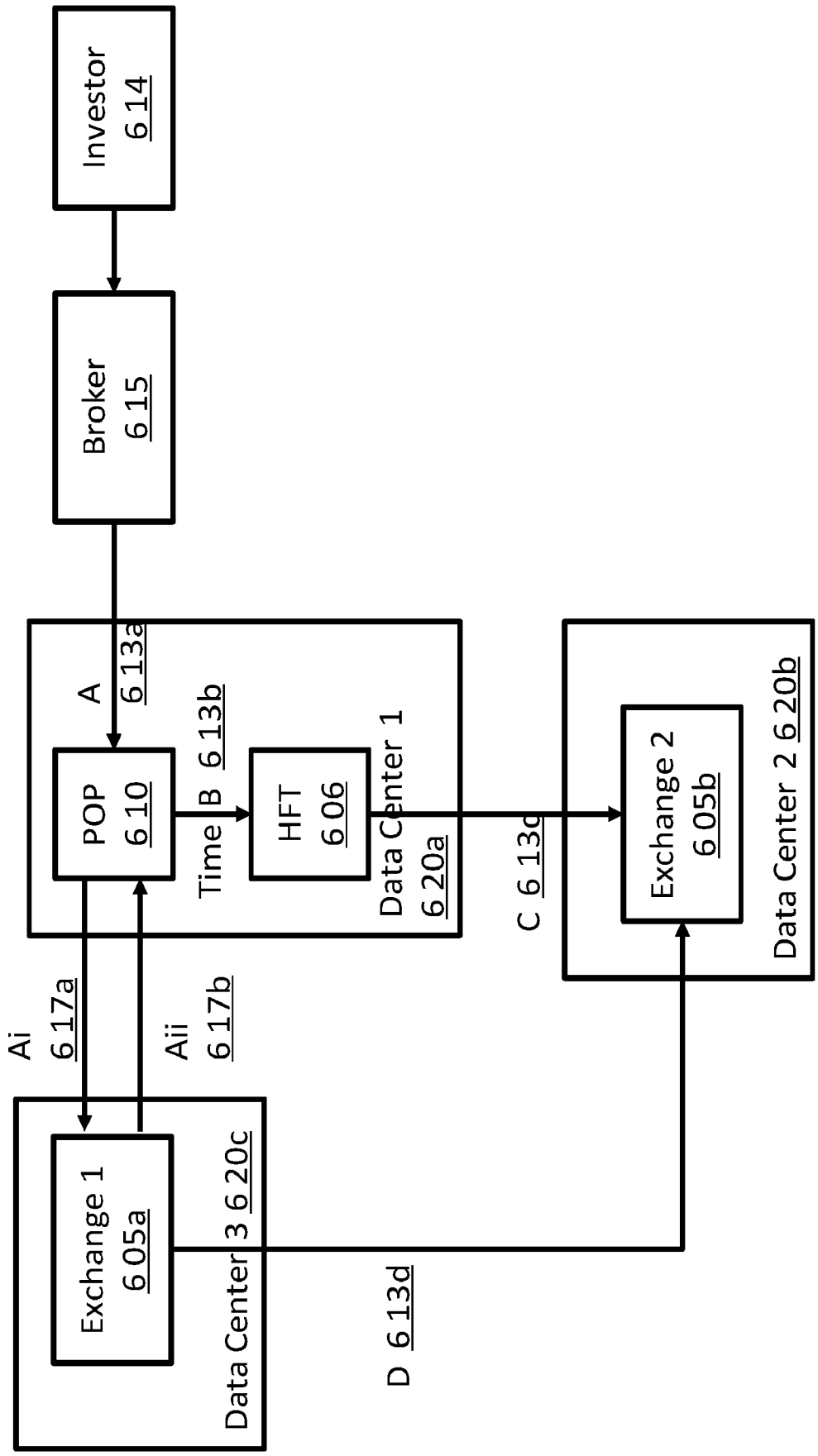
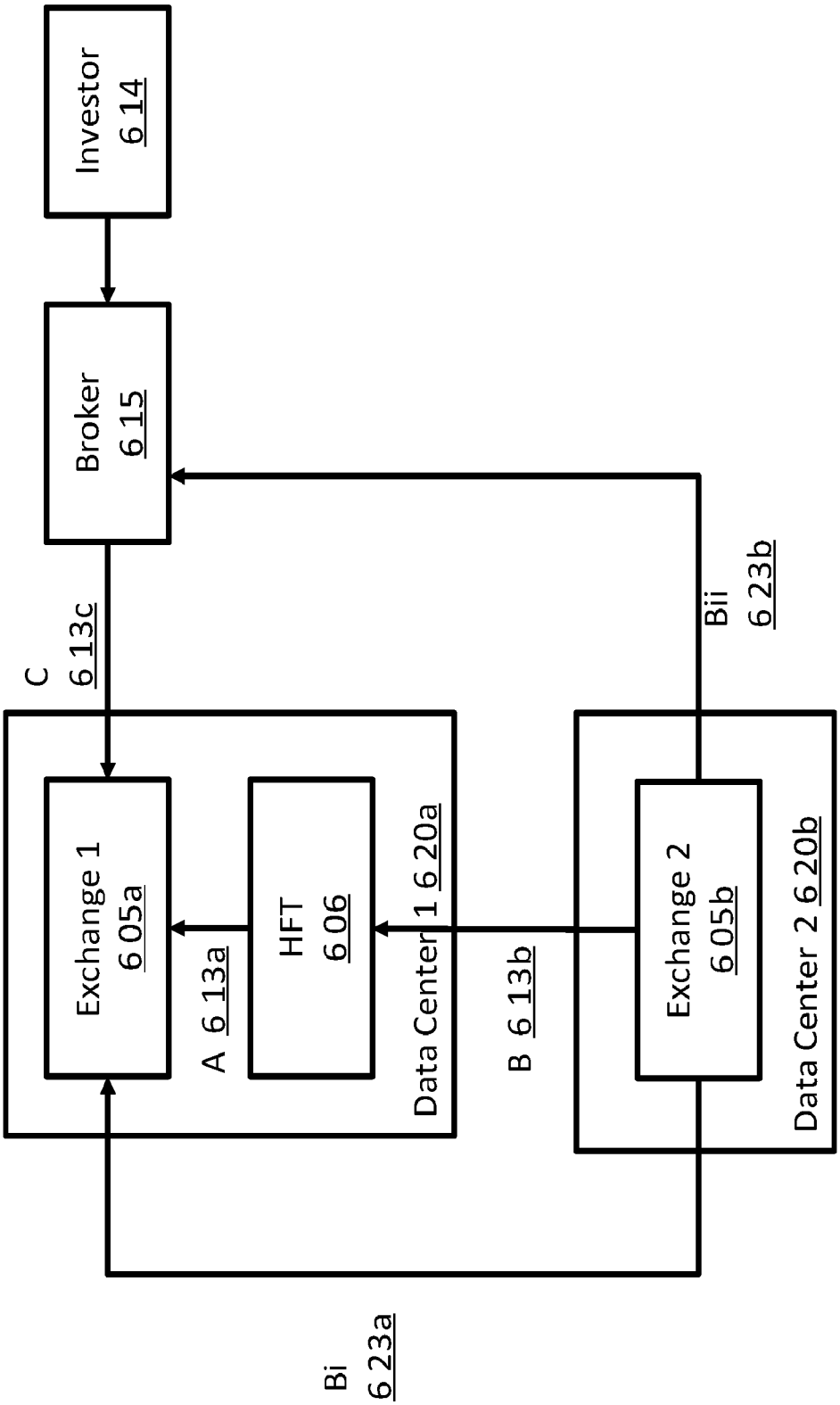


FIGURE 6D

TLL Example: Latency Arbitrage vs. Exchange SOR Inoculated



TLL Example: Order Book Arbitrage (Passive)

FIGURE 6E

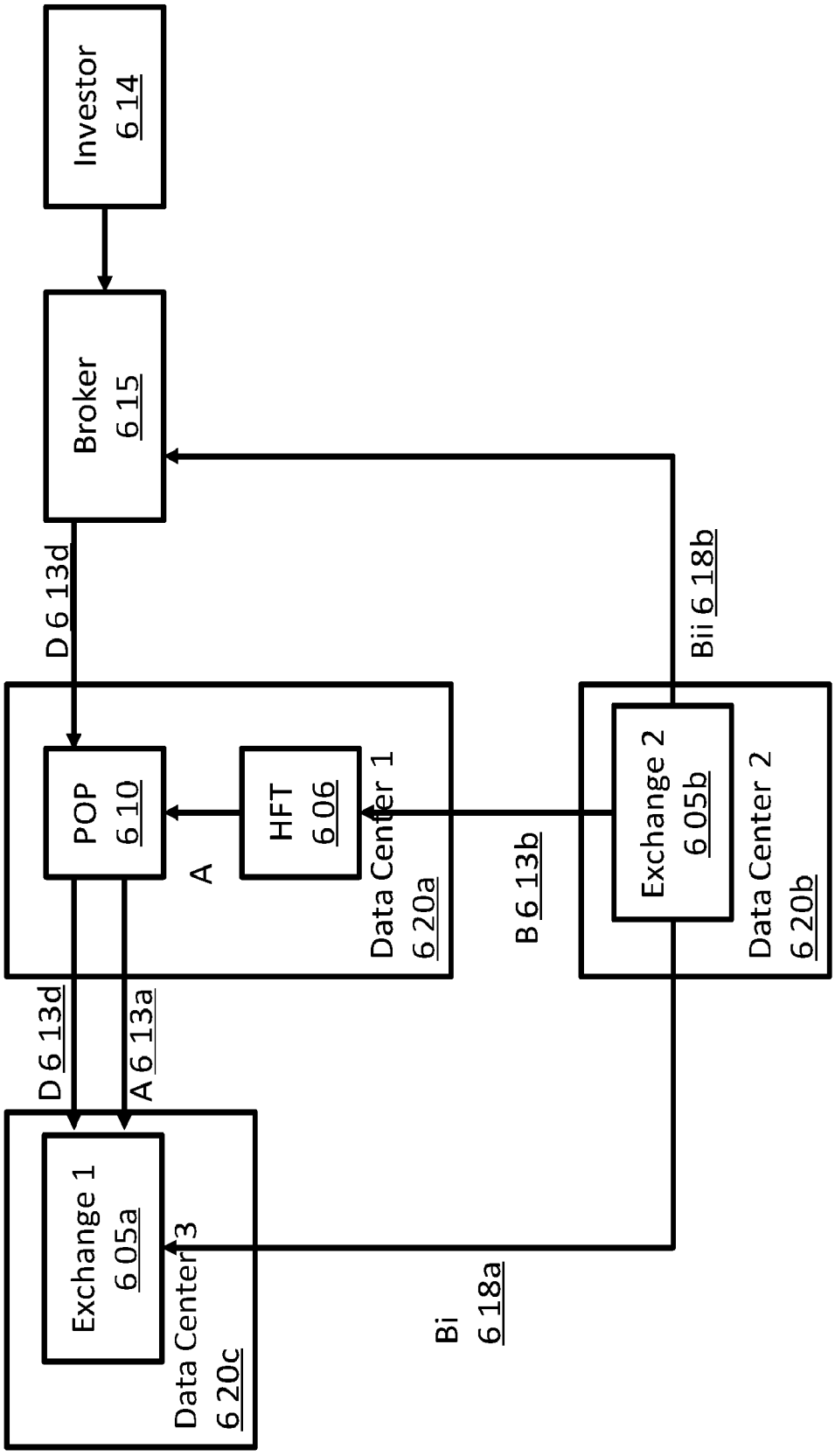
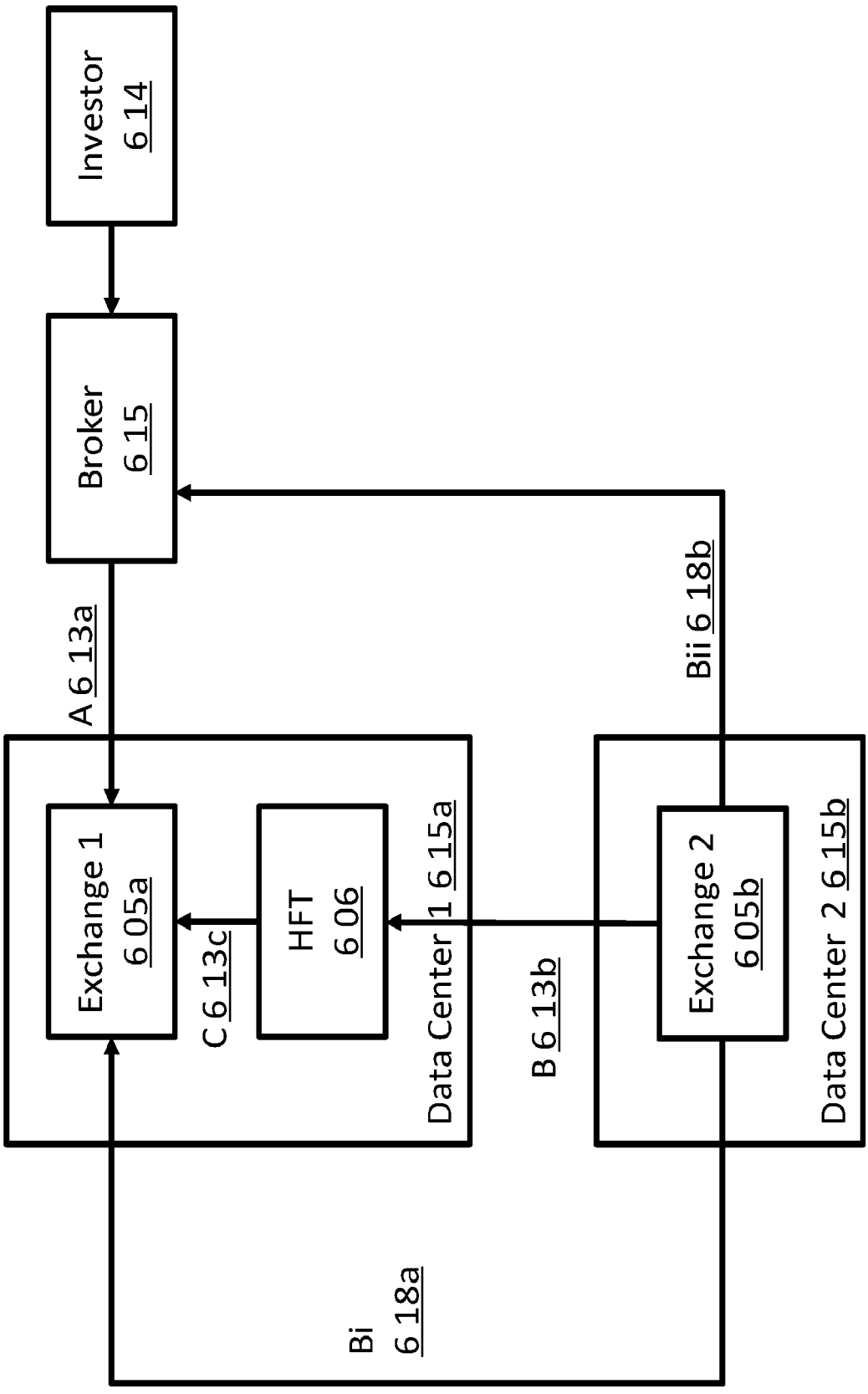


FIGURE 6F

TLL Example: Order Book Arbitrage (Passive Inoculated)



TLL Example: Order Book Arbitrage (Aggressive)

FIGURE 6G

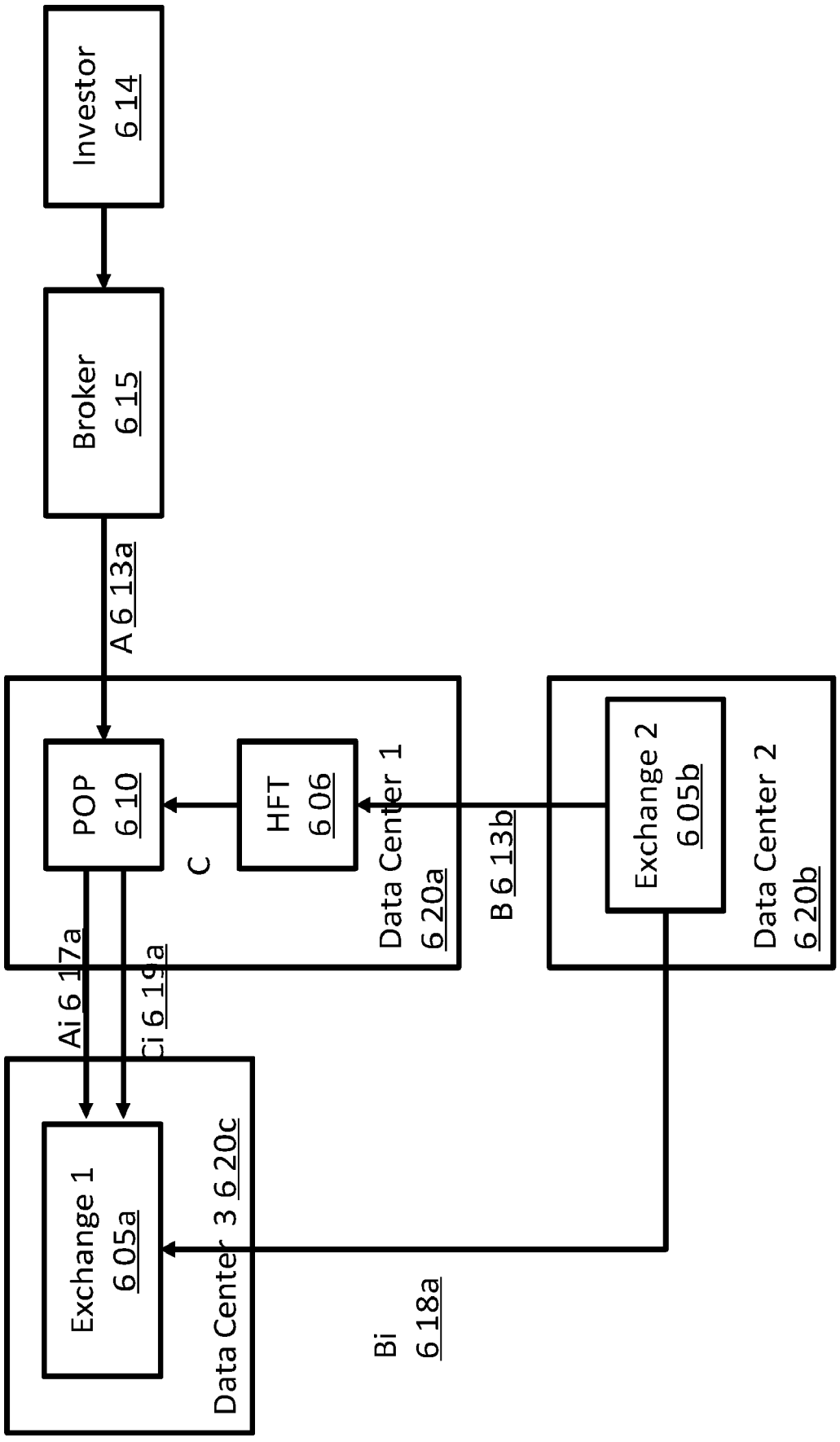


FIGURE 6H

TLL Example: Order Book Arbitrage (Aggressive Inoculated)

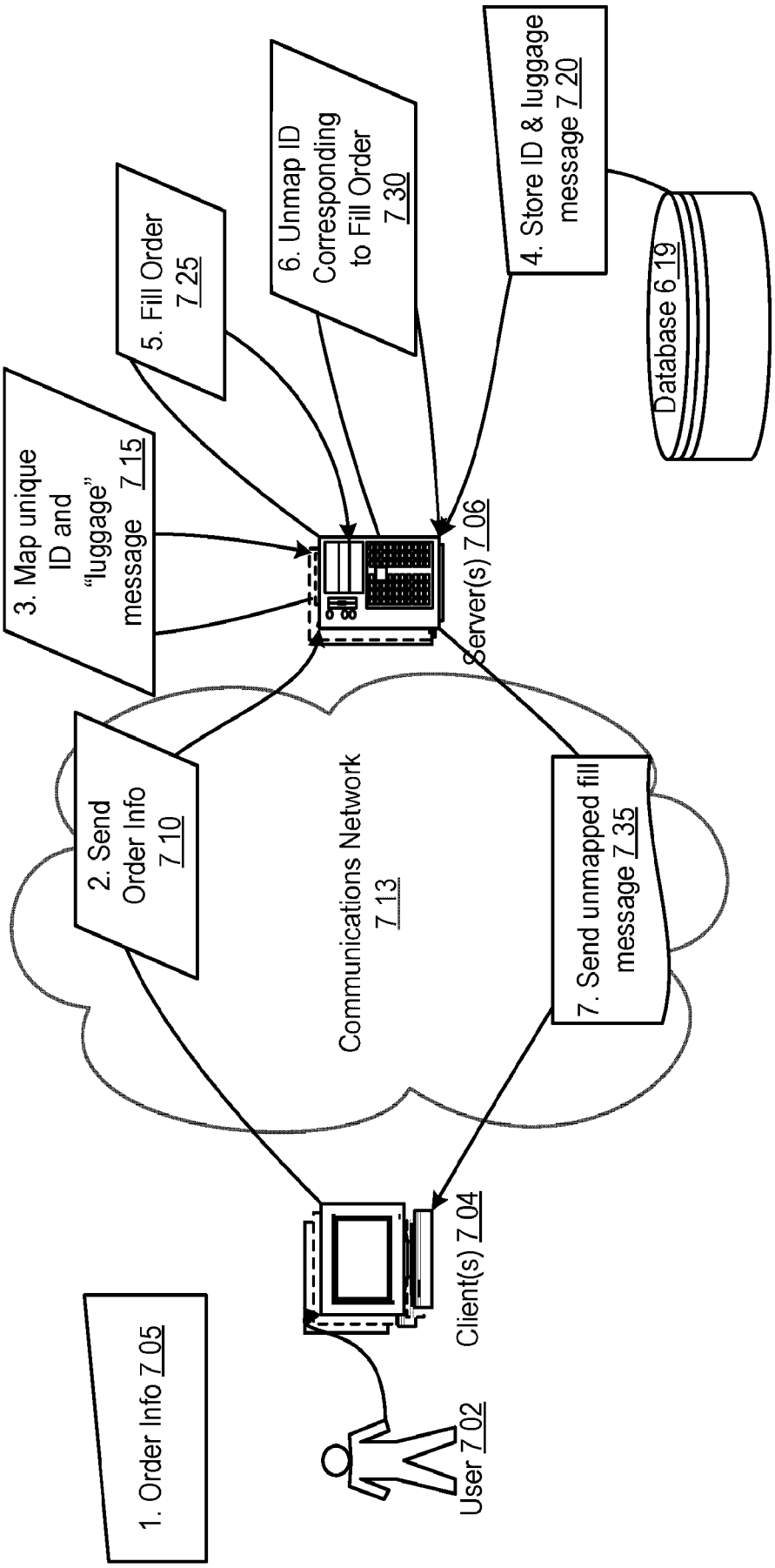
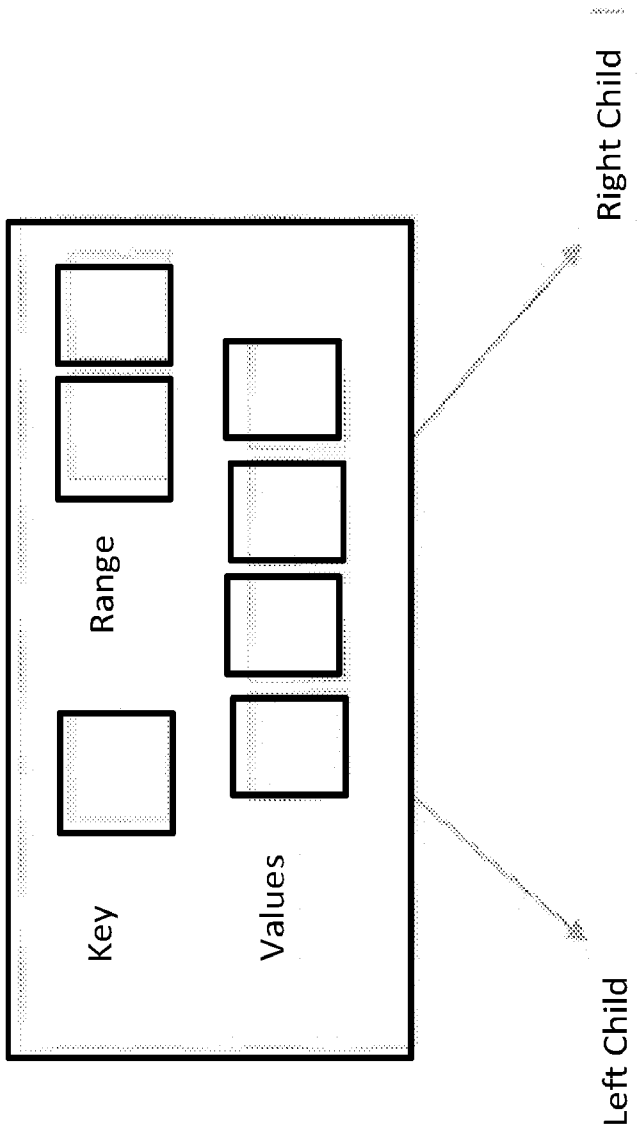
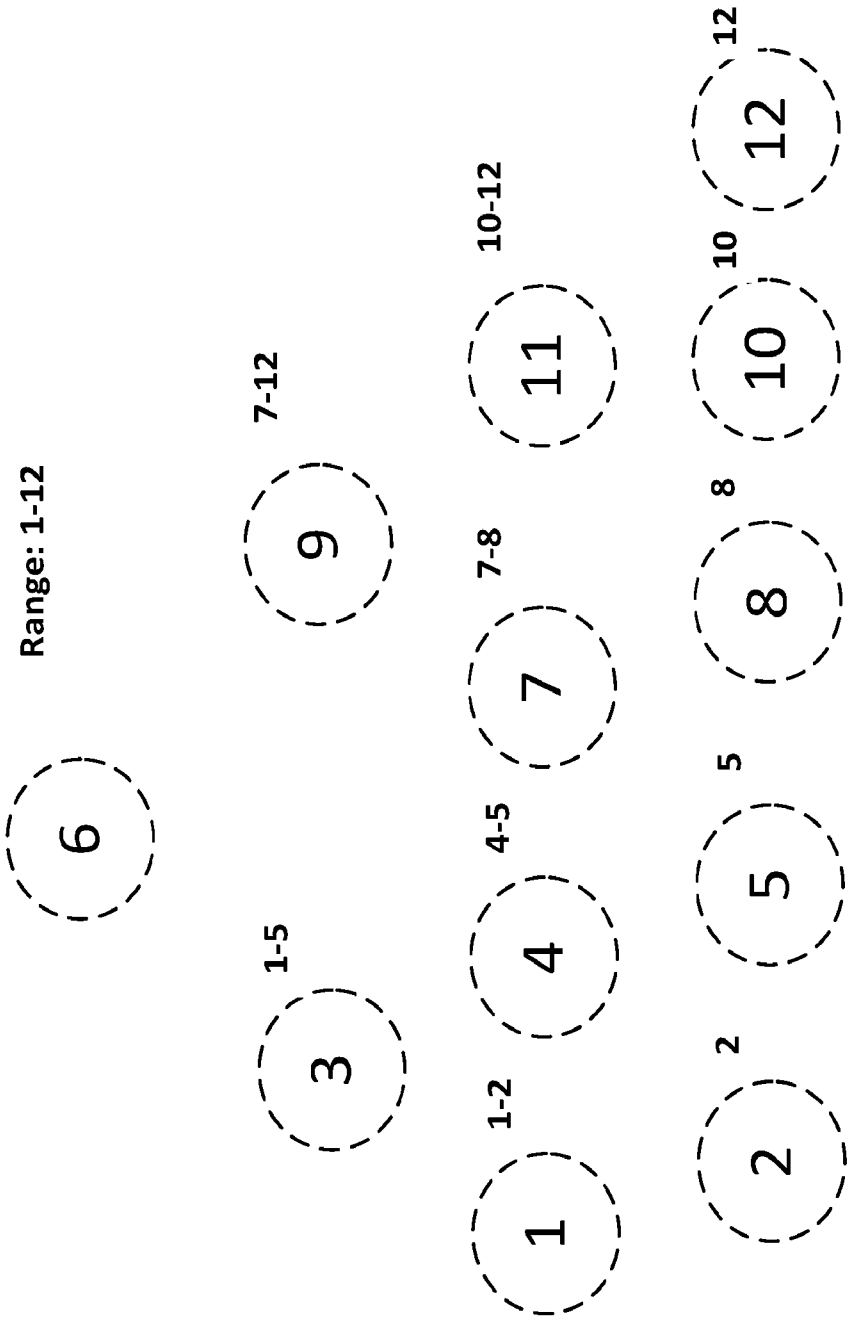

ID Mapping and Management Component 701
1. Order Info 705
2. Send Order Info 710
3. Map unique ID and "luggage" message 715
4. Store ID & luggage message 720
5. Fill Order 725
6. Unmap ID Corresponding to Fill Order 730
7. Send unmapped fill message 735
Communications Network 713
Server(s) 706
Client(s) 704
User 702
Database 619

Figure 7



TLL Example: Binary Search Tree

FIGURE 8A



TLL Example: Binary Search Tree

FIGURE 8B

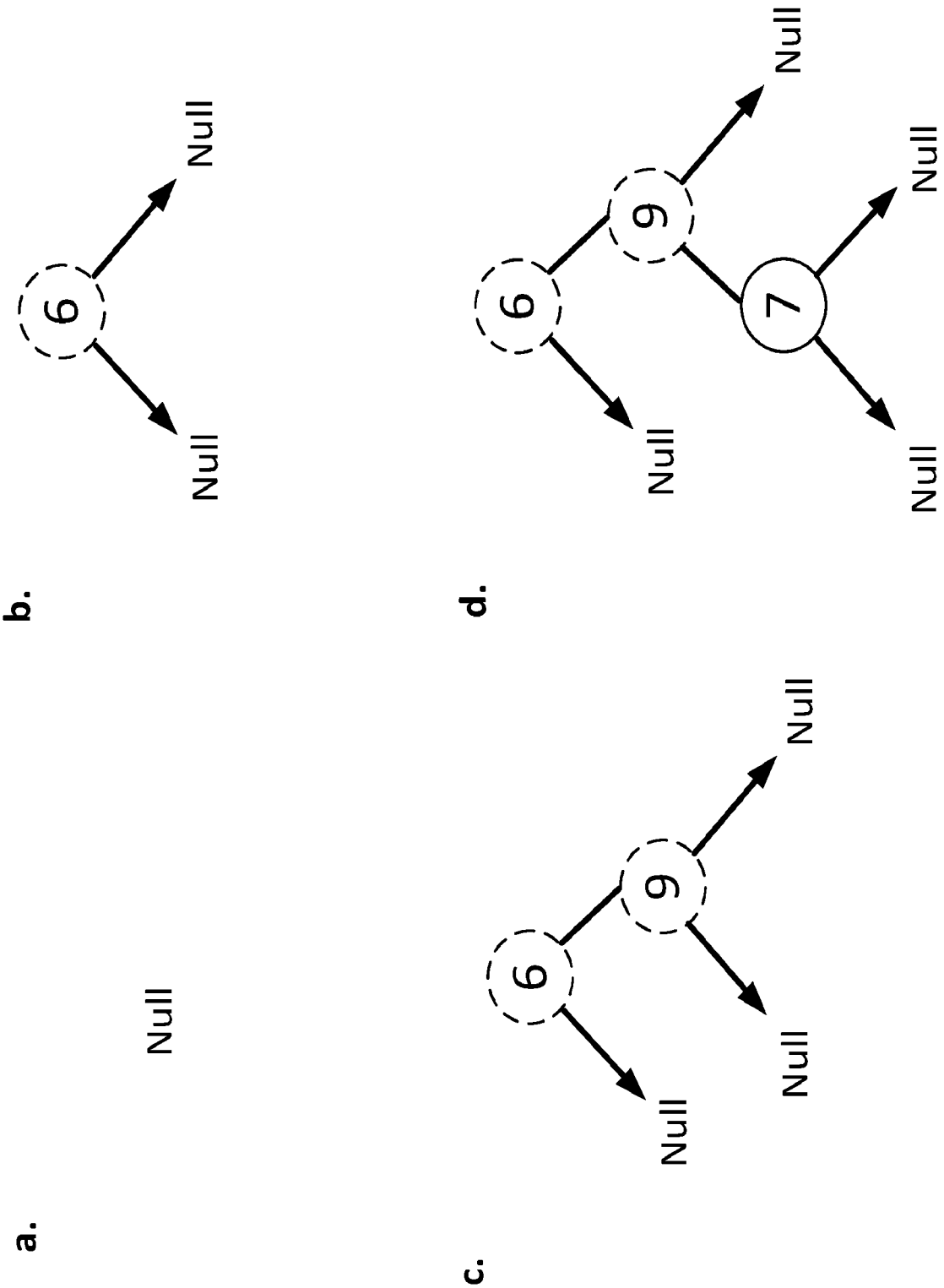
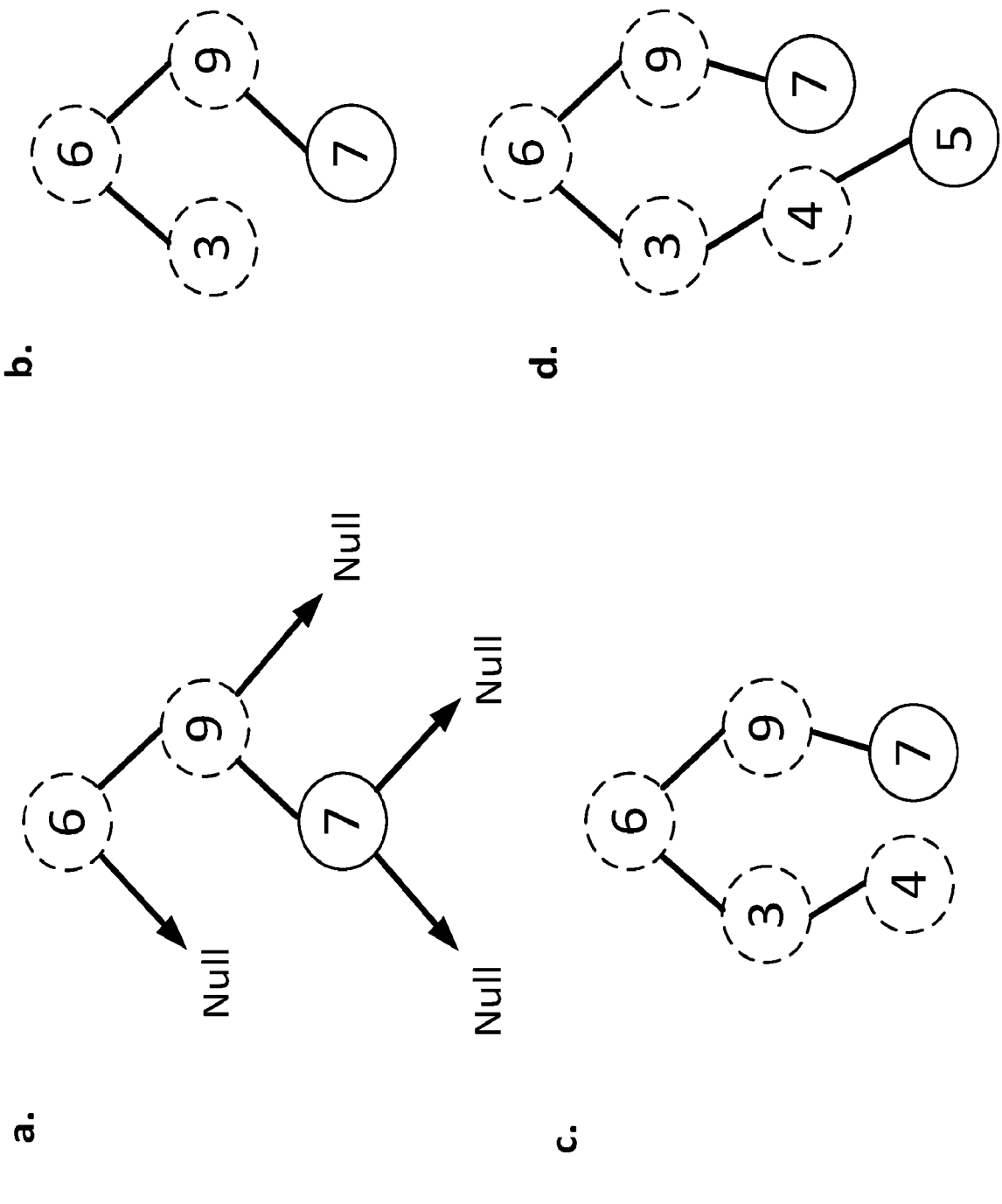


FIGURE 8C TLL Example: Binary Search Tree



TLL Example: Binary Search Tree

FIGURE 8D

FIGURE 9

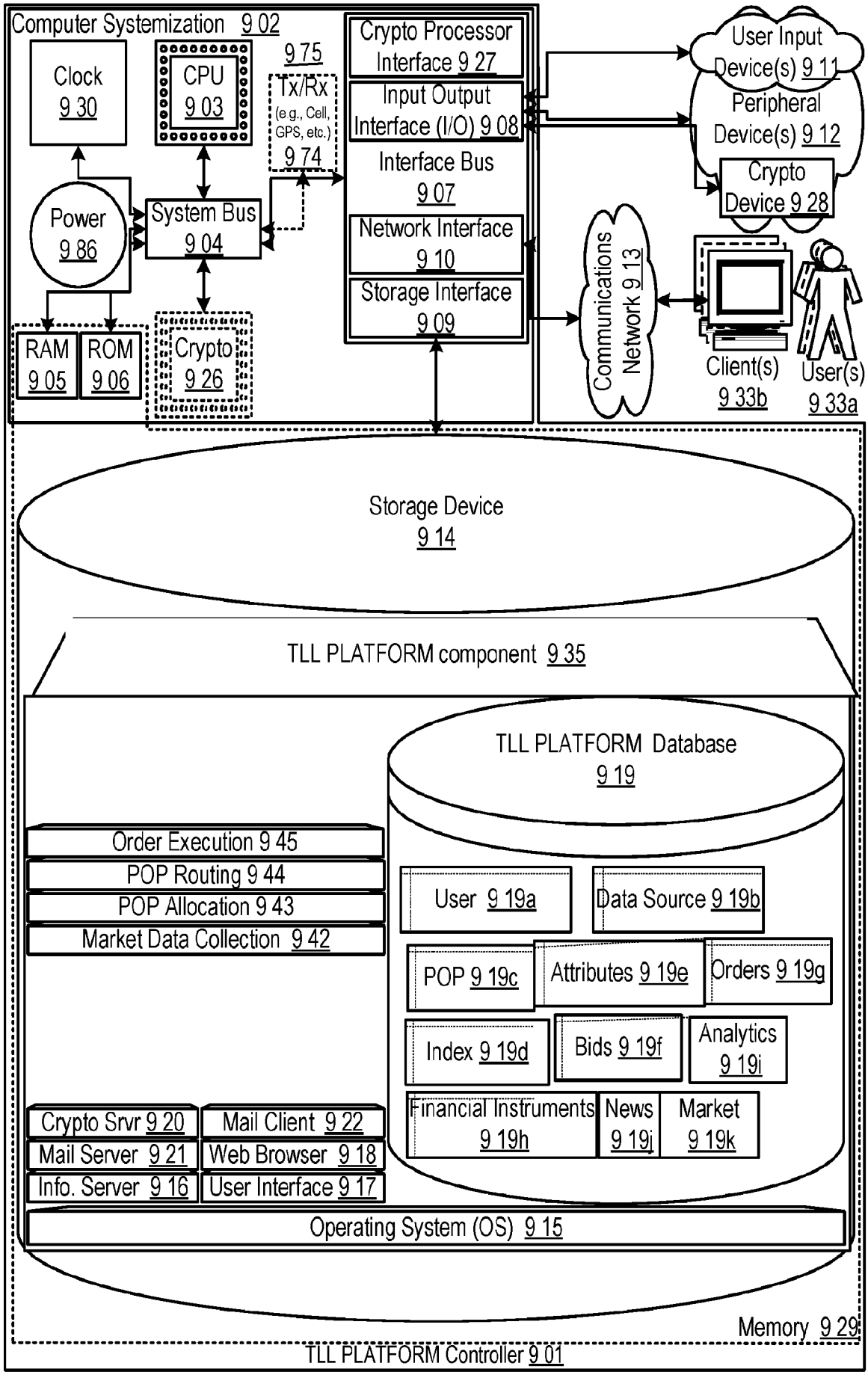

Computer Systemization 9 02
Clock 9 30
CPU 9 03
9 75
Tx/Rx (e.g., Cell, GPS, etc.) 9 74
Power 9 86
System Bus 9 04
RAM 9 05
ROM 9 06
Crypto 9 26
Crypto Processor Interface 9 27
Input Output Interface (I/O) 9 08
Interface Bus 9 07
Network Interface 9 10
Storage Interface 9 09
User Input Device(s) 9 11
Peripheral Device(s) 9 12
Crypto Device 9 28
Communications Network 9 13
Client(s) 9 33b
User(s) 9 33a
Storage Device 9 14
TLL PLATFORM component 9 35
TLL PLATFORM Database 9 19
Order Execution 9 45
POP Routing 9 44
POP Allocation 9 43
Market Data Collection 9 42
User 9 19a
Data Source 9 19b
POP 9 19c
Attributes 9 19e
Orders 9 19g
Index 9 19d
Bids 9 19f
Analytics 9 19i
Financial Instruments 9 19h
News 9 19j
Market 9 19k
Crypto Srvr 9 20
Mail Client 9 22
Mail Server 9 21
Web Browser 9 18
Info. Server 9 16
User Interface 9 17
Operating System (OS) 9 15
Memory 9 29
TLL PLATFORM Controller 9 01

FIGURE 10A

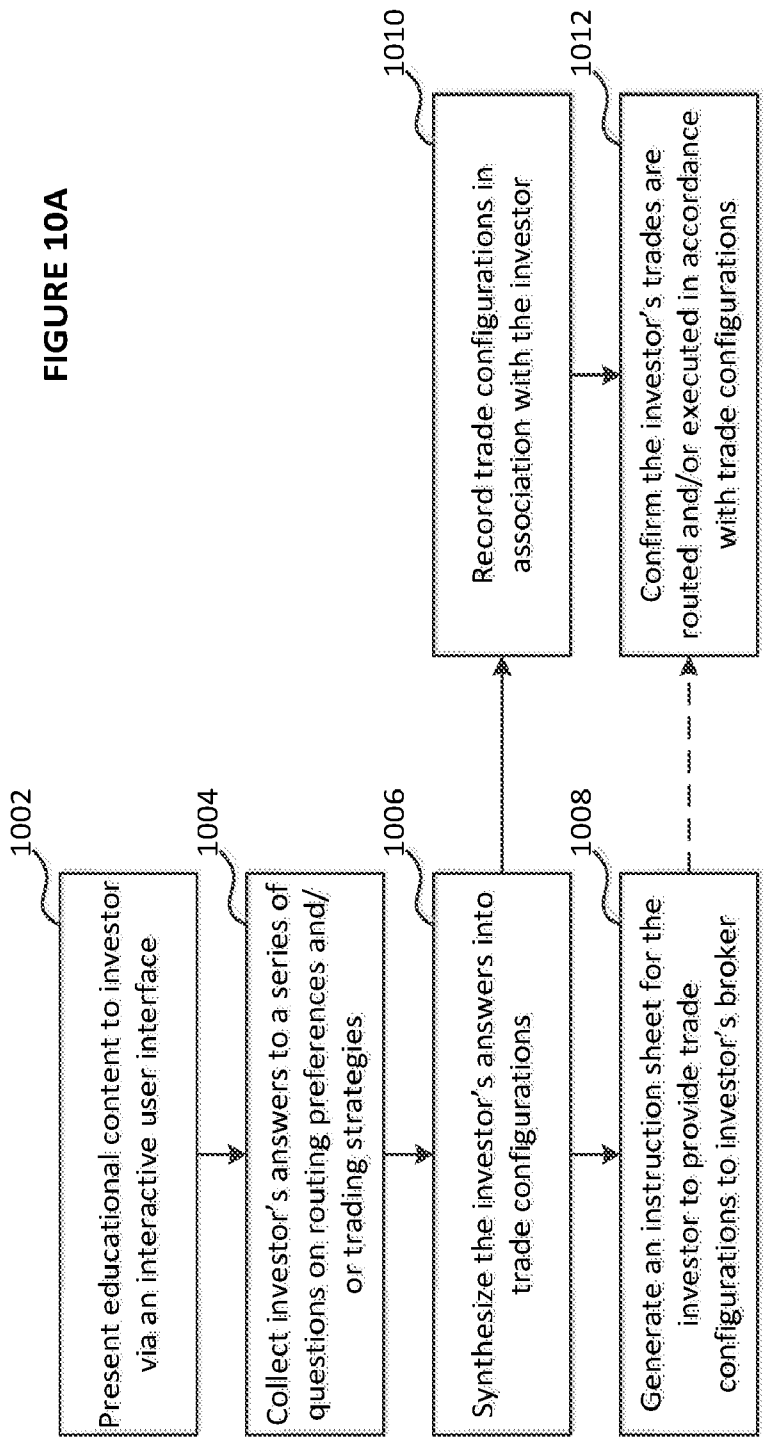

1002
Present educational content to investor via an interactive user interface
1004
Collect investor's answers to a series of questions on routing preferences and/or trading strategies
1006
Synthesize the investor's answers into trade configurations
1008
Generate an instruction sheet for the investor to provide trade configurations to investor's broker
1010
Record trade configurations in association with the investor
1012
Confirm the investor's trades are routed and/or executed in accordance with trade configurations

FIGURE 10B

1000

IEX Group would like to request the following algorithmic configuration customizations to interact with the IEX Market:

If any instruction(s) cannot be completed as requested, please provide IEX Group a brief written explanation describing any hindrances and/or alternative implementation options.

Non-Displayed Resting Interest (ExecInst FIX tag 18=i)

Please configure 25% of IEX Group's passive non-displayed orders to rest at the IEX market using an IEX-Only Non-Displayed Order. Apply this configuration to all of IEX Group's resting orders, including all resting orders currently sent to your own pool(s), if applicable.

Please rest each of IEX Group's orders on IEX using a limit price that is consistent with the order's original limit.

Please use a balanced re-allocation method for each of IEX Group's orders when split-resting in two or more pools. If an order in any of the selected pools receives a complete fill, send all remaining marketable shares immediately to that pool in an attempt to trade additional shares. After a reasonable amount of time, redistribute the remainder of the order in a balanced manner among the selected pools.

IEX Check (TimeInForce FIX tag 59=4)

Please use the "IEX Check" FOK order type prior to routing aggressive orders to any pool, including your own pool(s) if applicable.

Broker Routing Strategy Inclusion

Please include IEX among the trading venues accessed as part of both your lit and dark routing strategies (as applicable)

SUBSTITUTE SHEET (RULE 26)

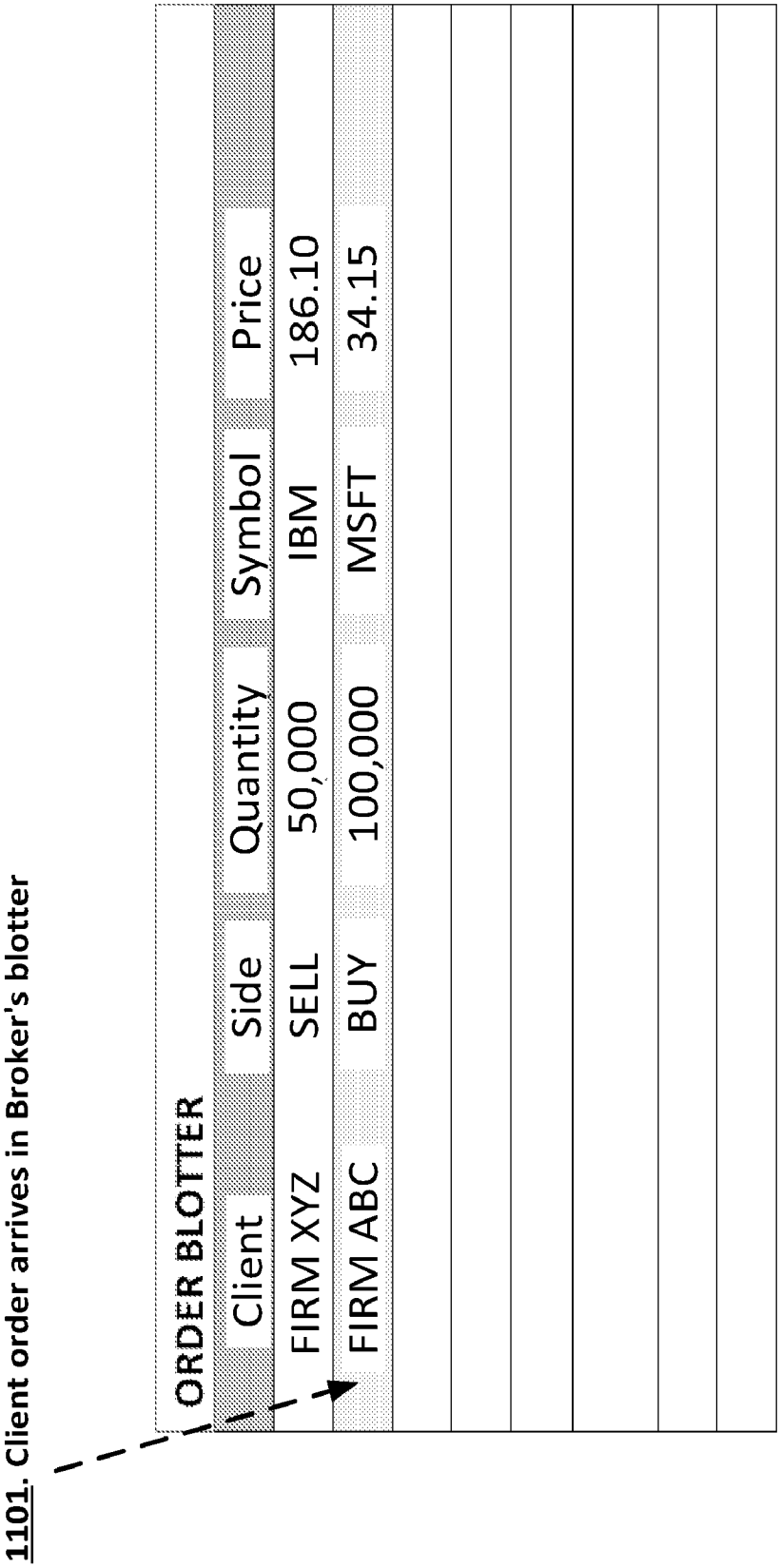

1101. Client order arrives in Broker's blotter
ORDER BLOTTER
Client
Side
Quantity
Symbol
Price
FIRM XYZ
SELL
50,000
IBM
186.10
FIRM ABC
BUY
100,000
MSFT
34.15

FIGURE 11A

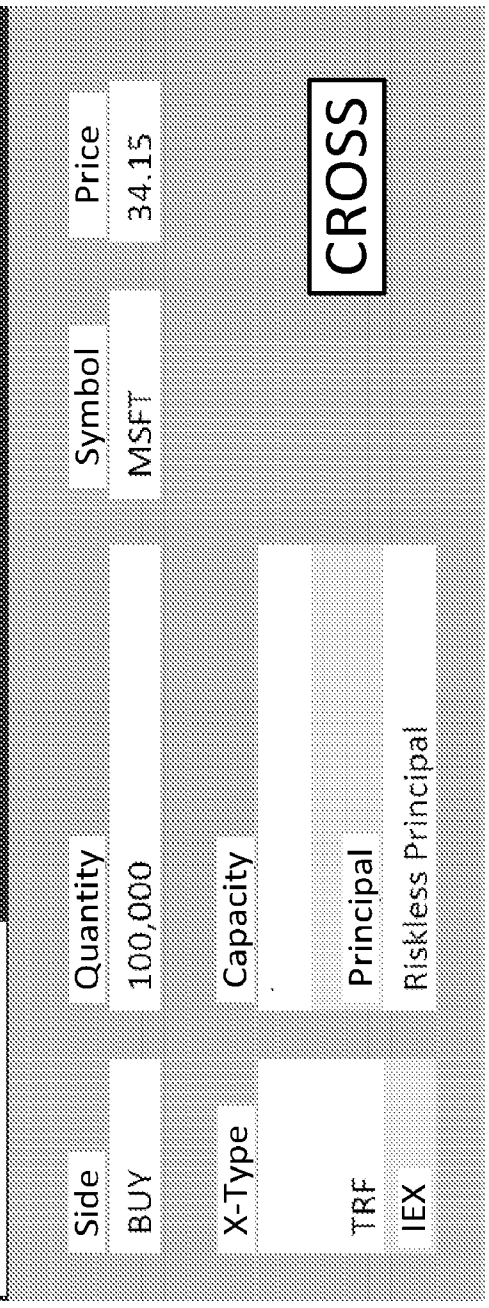

FACILITATION CROSS
Side
BUY
Quantity
100,000
Symbol
MSFT
Price
34.15
X-Type
TRF
IEX
Capacity
Principal
Riskless Principal
CROSS
Broker Exec
Route
Exec
Etc.
1102. Broker fills Facilitation Cross order parameters

FIGURE 11B

FIGURE 11C

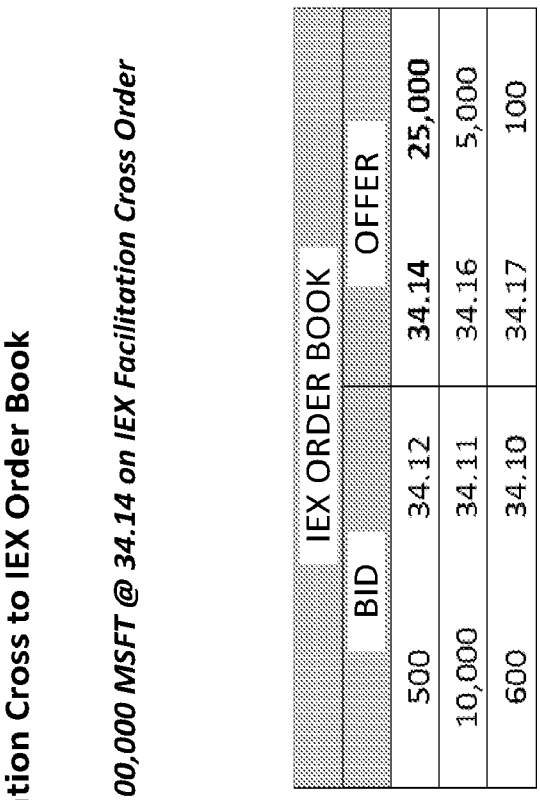

1103. Broker submits Facilitation Cross to IEX Order Book
BUY 100,000 MSFT @ 34.14 on IEX Facilitation Cross Order
IEX ORDER BOOK
BID
OFFER
500 34.12 34.14 25,000
10,000 34.11 34.16 5,000
600 34.10 34.17 100

FIGURE 12

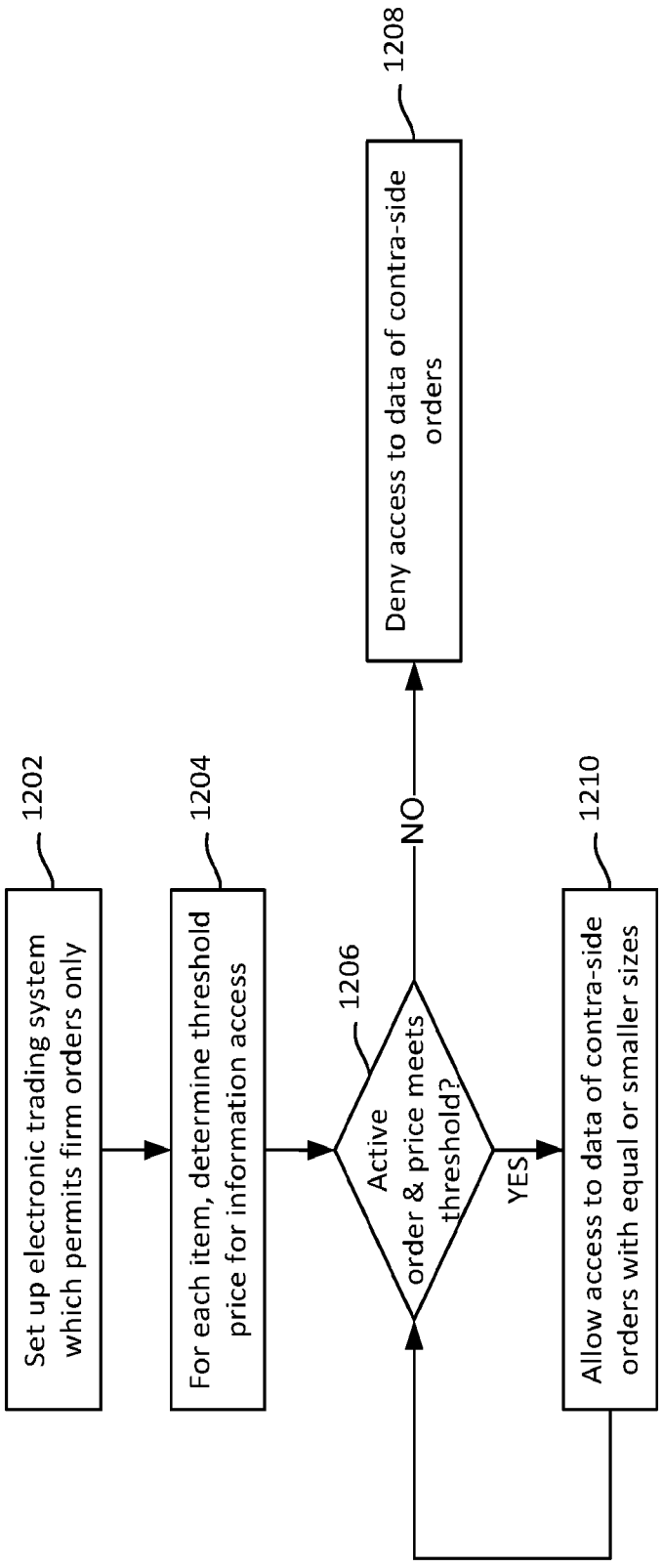

1202
Set up electronic trading system which permits firm orders only
1204
For each item, determine threshold price for information access
1206
Active order & price meets threshold?
NO
1208
Deny access to data of contra-side orders
YES
1210
Allow access to data of contra-side orders with equal or smaller sizes

FIGURE 13

Order Book – *Bank of America (BAC)*			
Bid		Ask	
$14.98	100	$15.02	800
$14.97	200	$15.04	900
$14.95	400	$15.10	1000
$14.90	1000	$15.13	4000
$14.85	2000	$15.15	1200
$14.82	300	$15.30	600