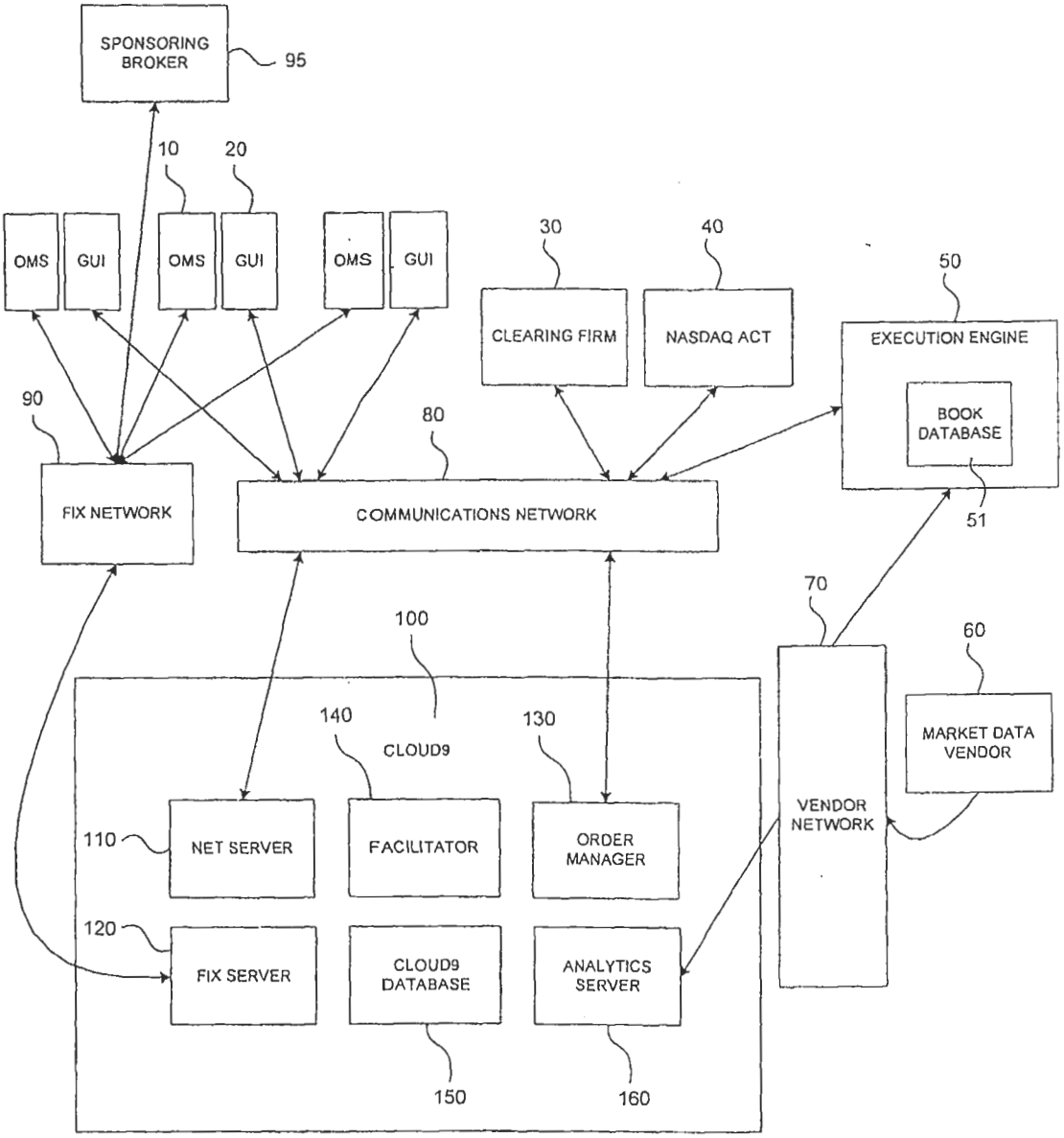

SPONSORING BROKER
95
10
20
OMS
GUI
OMS
GUI
OMS
GUI
30
40
50
CLEARING FIRM
NASDAQ ACT
EXECUTION ENGINE
BOOK DATABASE
51
90
80
FIX NETWORK
COMMUNICATIONS NETWORK
70
60
100
140
130
CLOUD9
MARKET DATA VENDOR
VENDOR NETWORK
110
NET SERVER
FACILITATOR
ORDER MANAGER
120
FIX SERVER
CLOUD9 DATABASE
ANALYTICS SERVER
150
160

FIG. 1

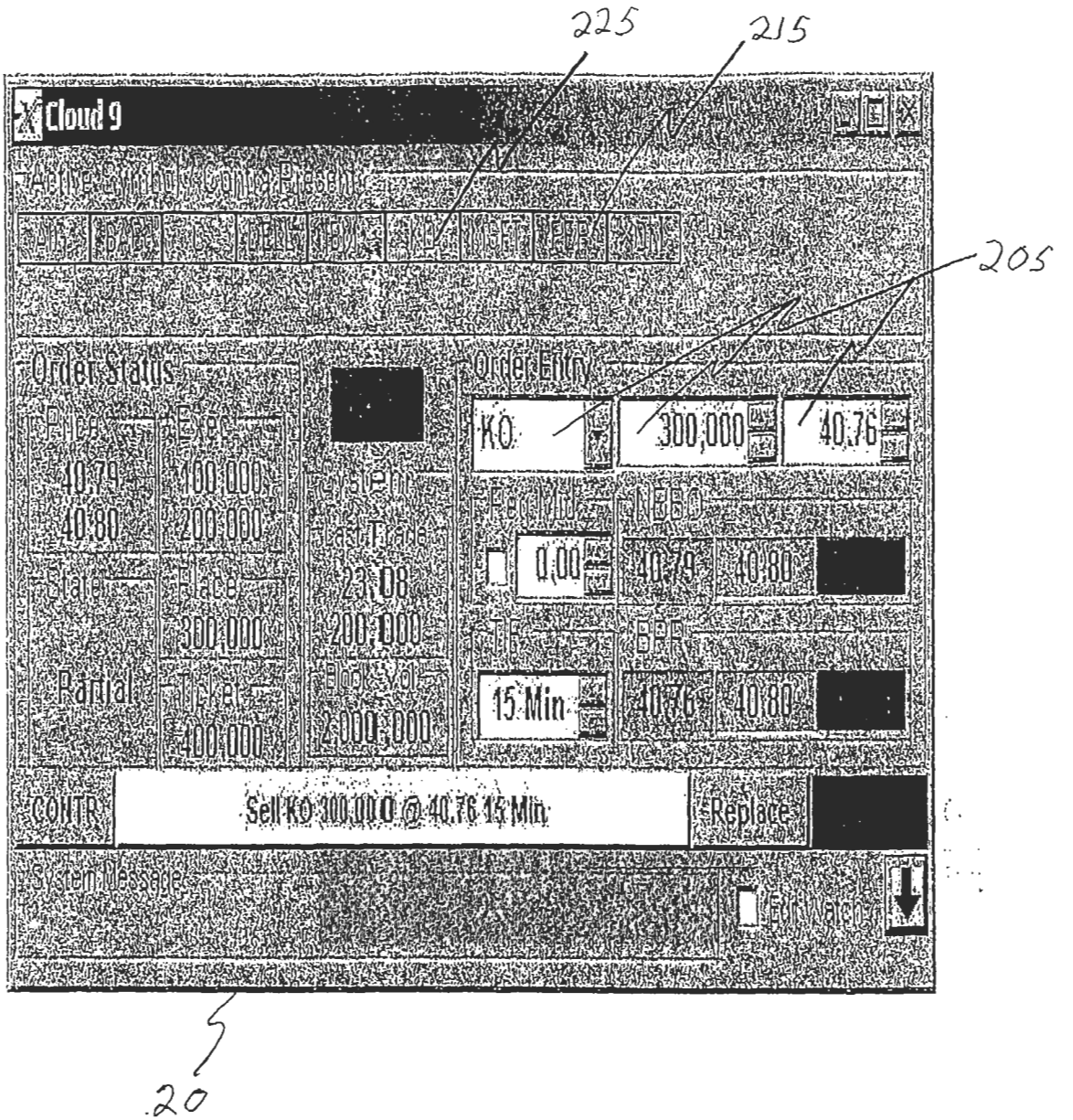

225
215
205
Cloud 9
Order Status
Order Entry
KO
300,000
40.76
40.79
40.80
160,000
200,000
300,000
400,000
Partial
15 Min
Sell KO 300,000 @ 40.76 15 Min
Replace
System Message
20

FIG. 2

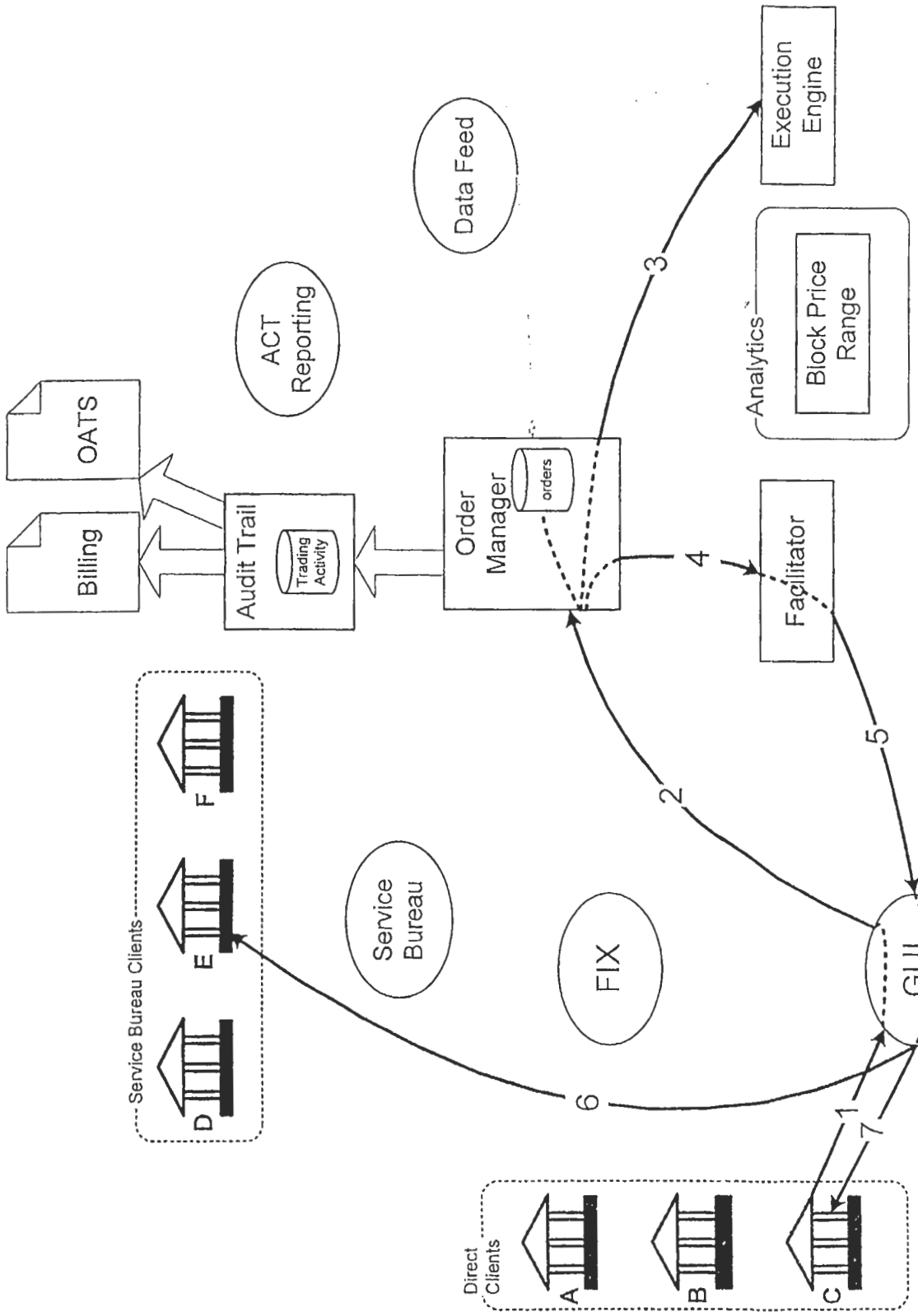

OATS
Billing
Audit Trail
Trading Activity
ACT Reporting
Data Feed
Order Manager
orders
Execution Engine
Analytics
Block Price Range
Facilitator
Service Bureau Clients
D
E
F
Service Bureau
FIX
GUI
Direct Clients
A
B
C
1
2
3
4
5
6
7

FIG. 3(a)

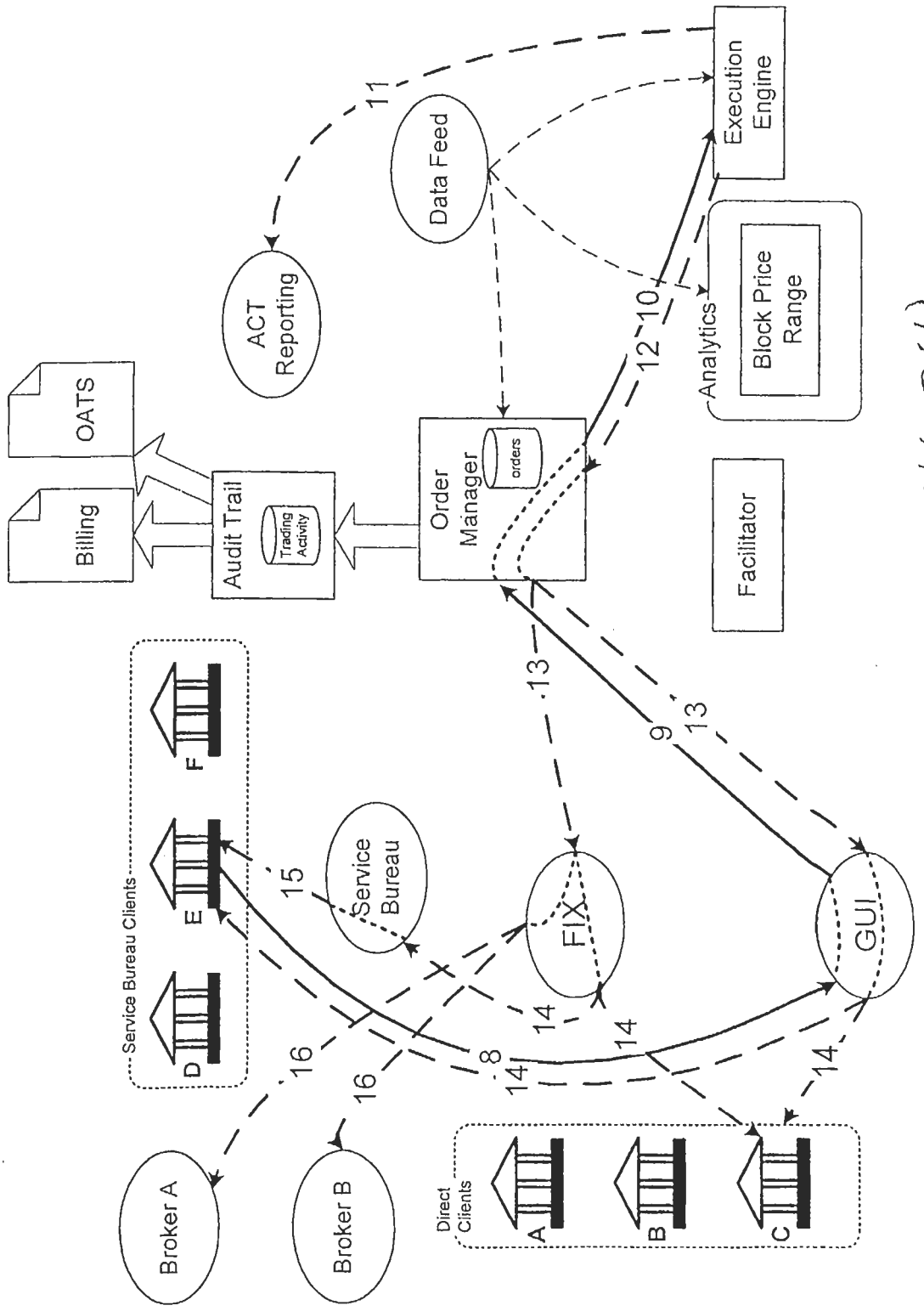

OATS
Billing
Audit Trail
Trading Activity
ACT Reporting
Data Feed
Execution Engine
Analytics
Block Price Range
Order Manager
orders
Facilitator
Service Bureau Clients
D
E
F
Service Bureau
FIX
GUI
Broker A
Broker B
Direct Clients
A
B
C
8
9
10
11
12
13
14
15
16

FIG. 3(b)

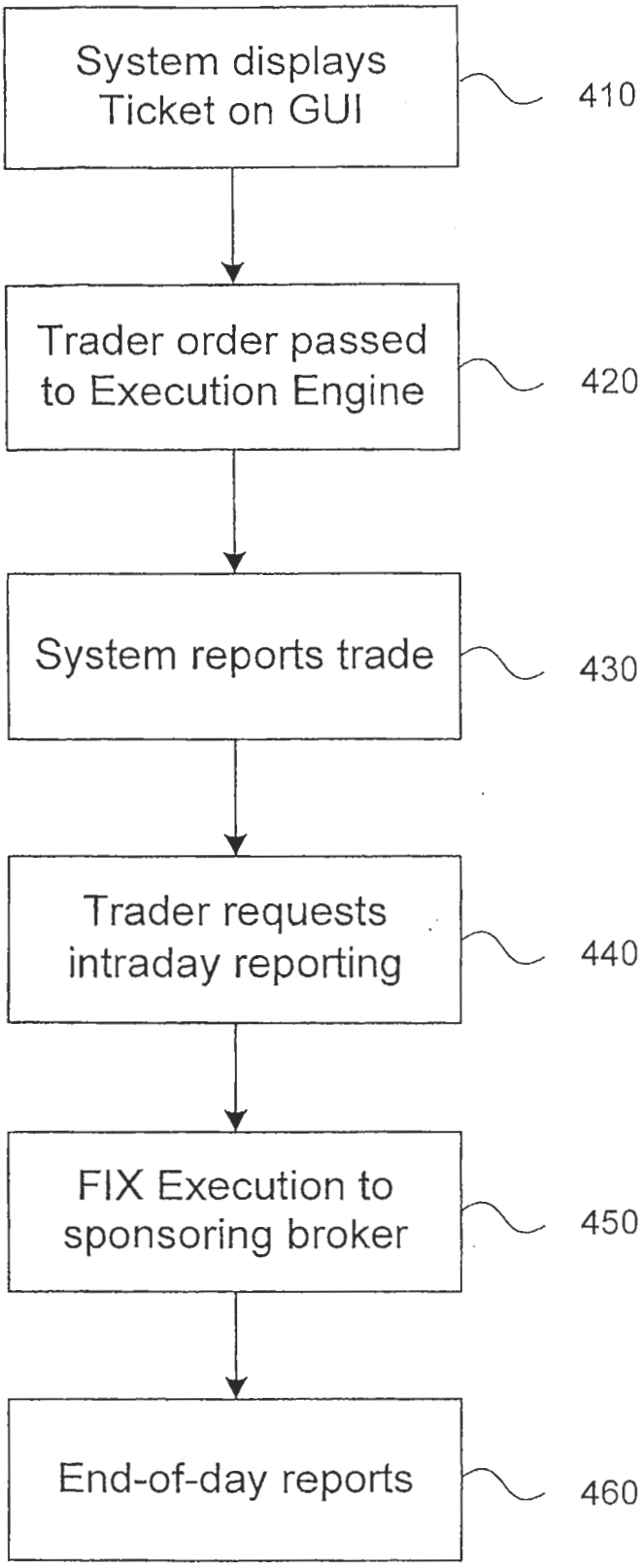

System displays Ticket on GUI
410
Trader order passed to Execution Engine
420
System reports trade
430
Trader requests intraday reporting
440
FIX Execution to sponsoring broker
450
End-of-day reports
460

FIG. 4

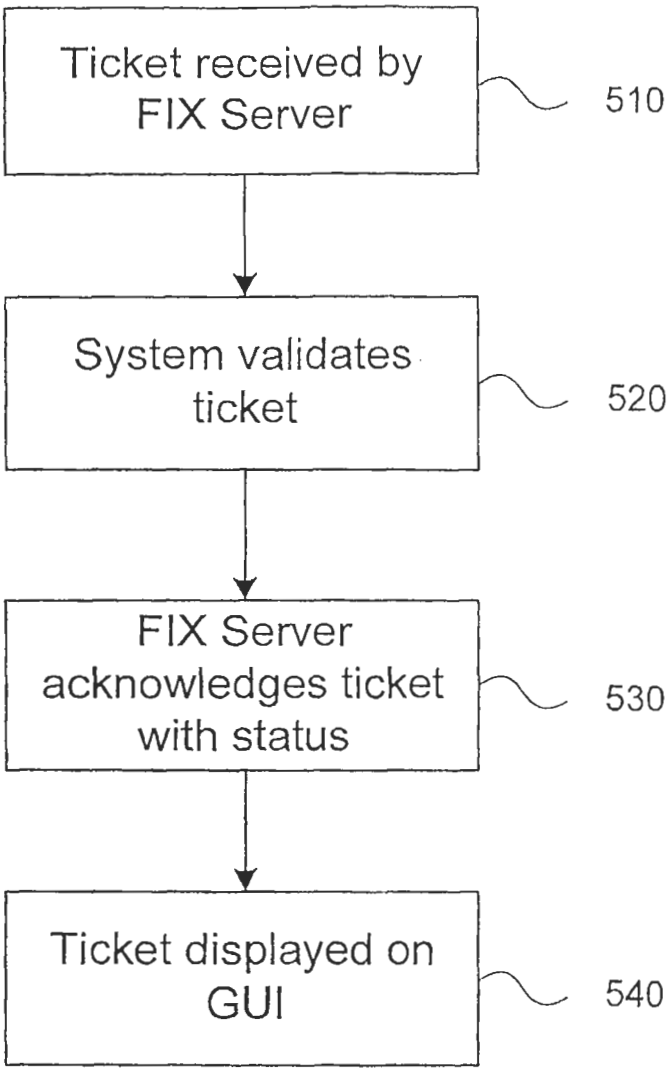

Ticket received by FIX Server
510
System validates ticket
520
FIX Server acknowledges ticket with status
530
Ticket displayed on GUI
540

FIG. 5

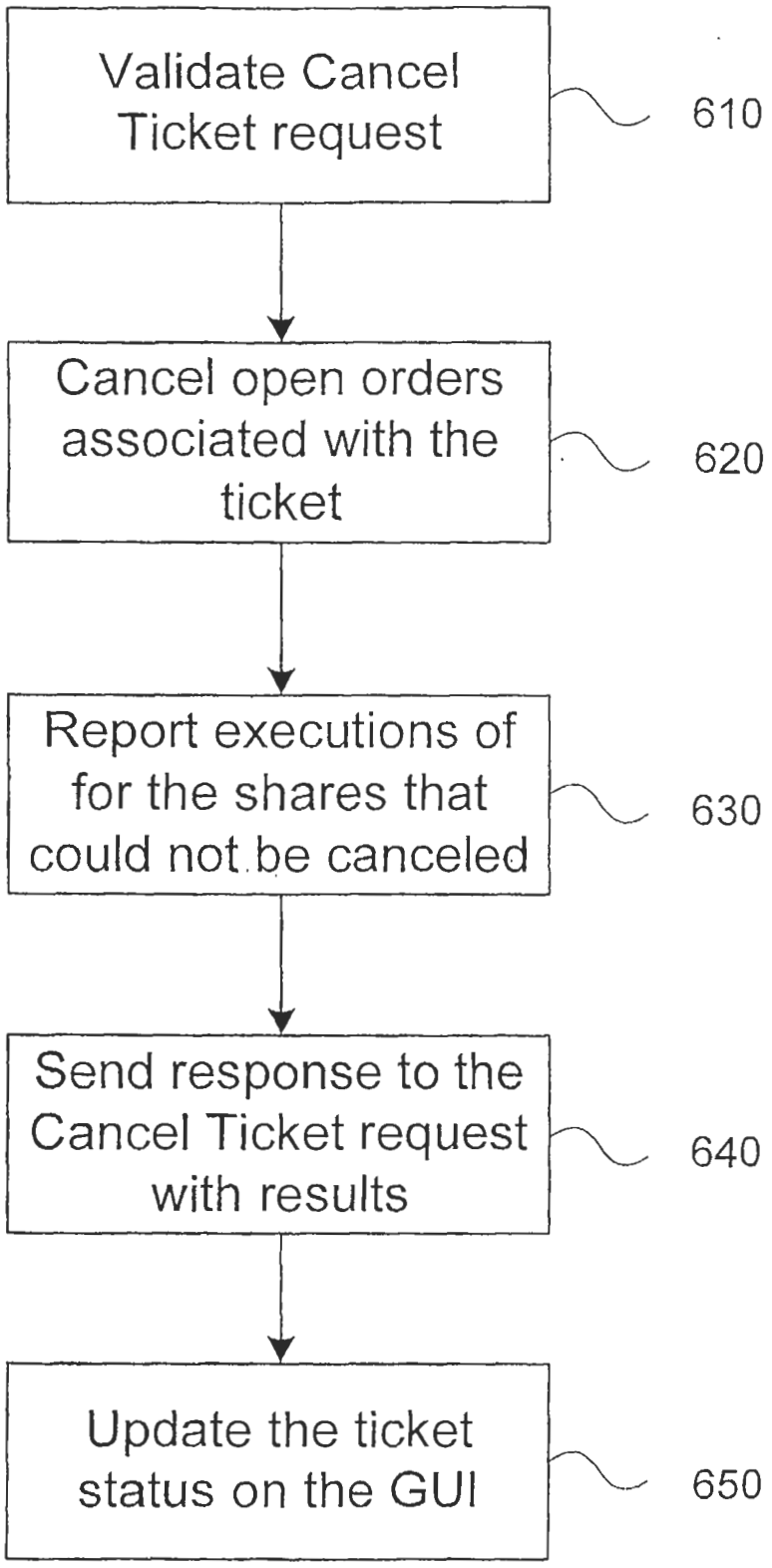

Validate Cancel Ticket request
610
Cancel open orders associated with the ticket
620
Report executions of for the shares that could not be canceled
630
Send response to the Cancel Ticket request with results
640
Update the ticket status on the GUI
650

FIG. 6

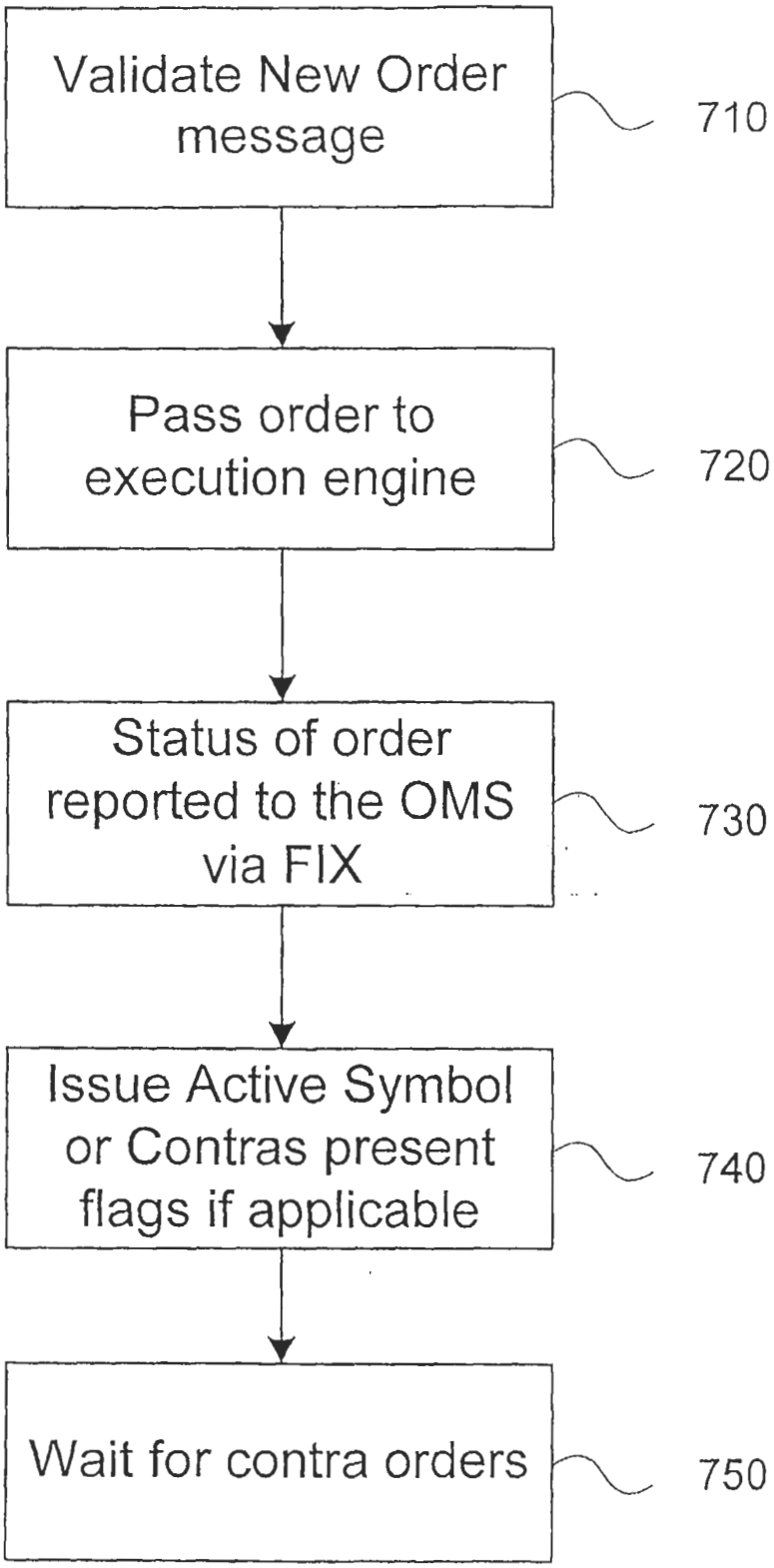

Validate New Order message
710
Pass order to execution engine
720
Status of order reported to the OMS via FIX
730
Issue Active Symbol or Contras present flags if applicable
740
Wait for contra orders
750

FIG. 7

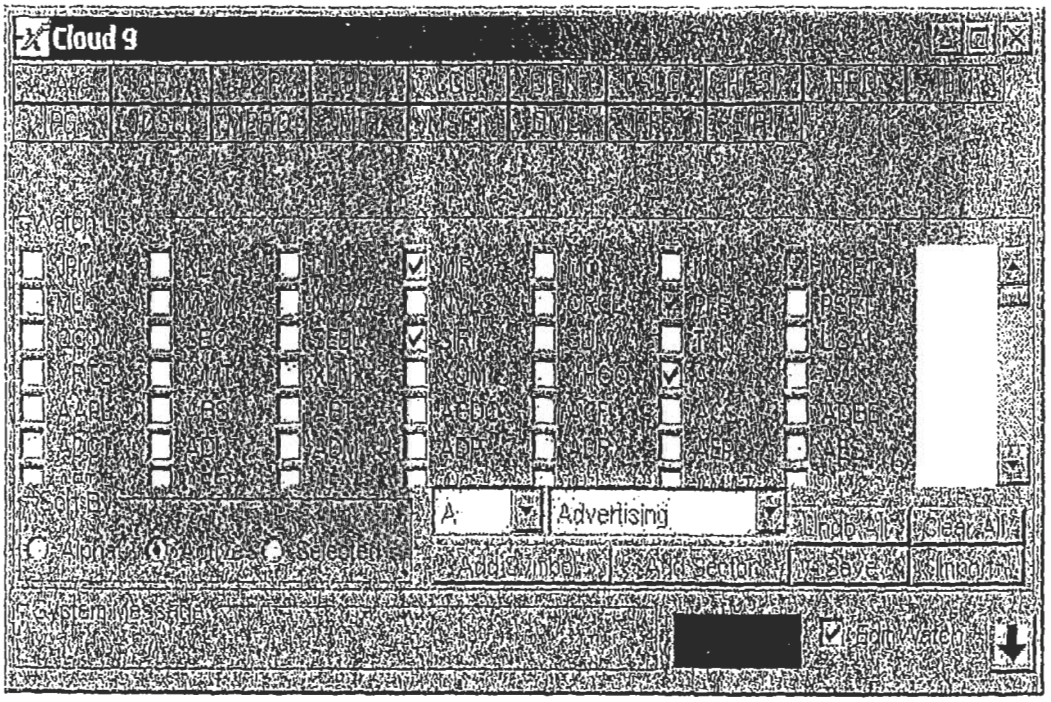


FIG. 8

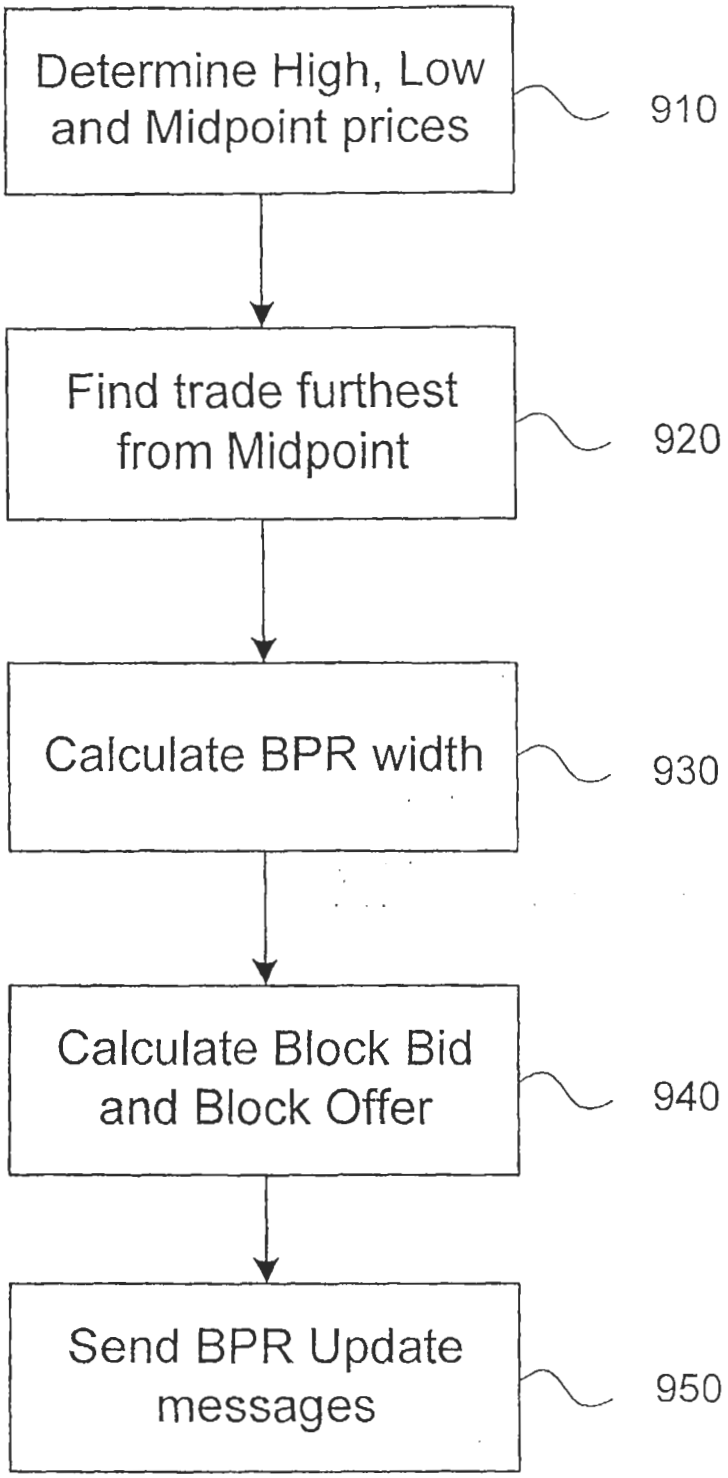

Determine High, Low and Midpoint prices
910
Find trade furthest from Midpoint
920
Calculate BPR width
930
Calculate Block Bid and Block Offer
940
Send BPR Update messages
950

FIG. 9

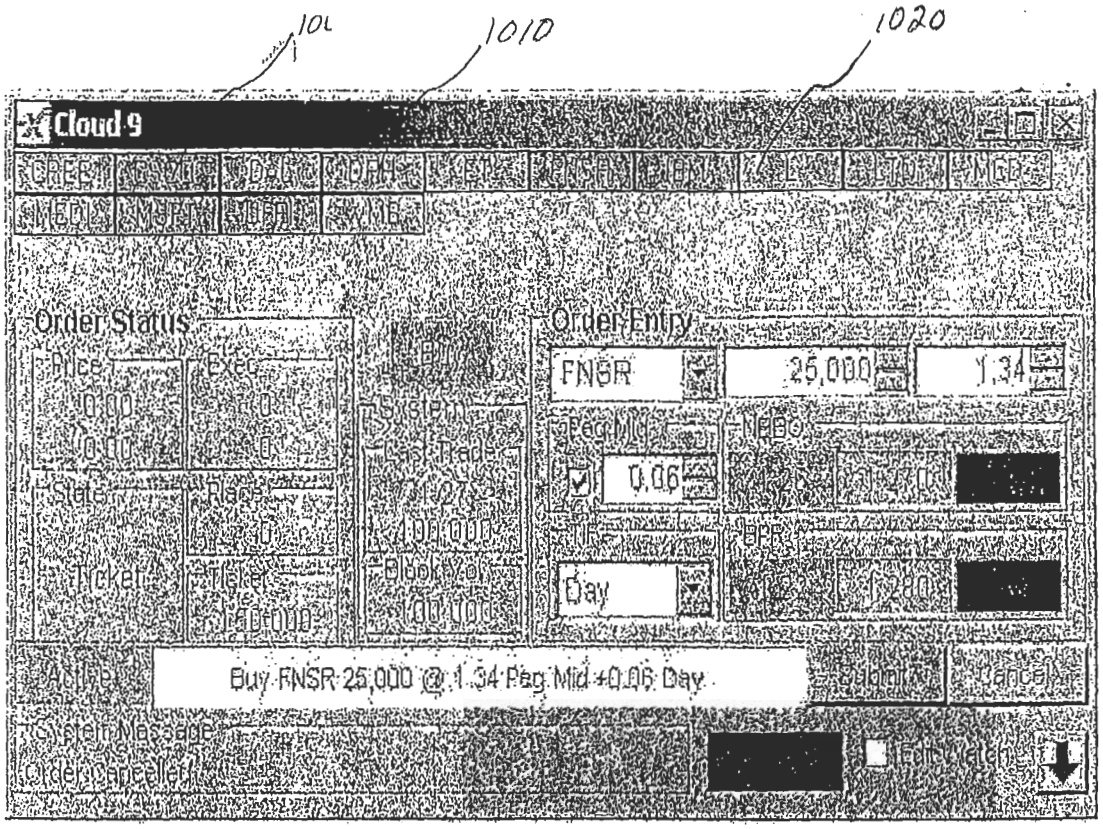

101
1010
1020
Cloud 9
Order Status
Order Entry
FNSR
25,000
1.34
Peg Mid
0.06
Day
Buy FNSR 25,000 @ 1.34 Peg Mid +0.06 Day
Submit
Cancel
System Message
Order Cancelled

FIG. 10