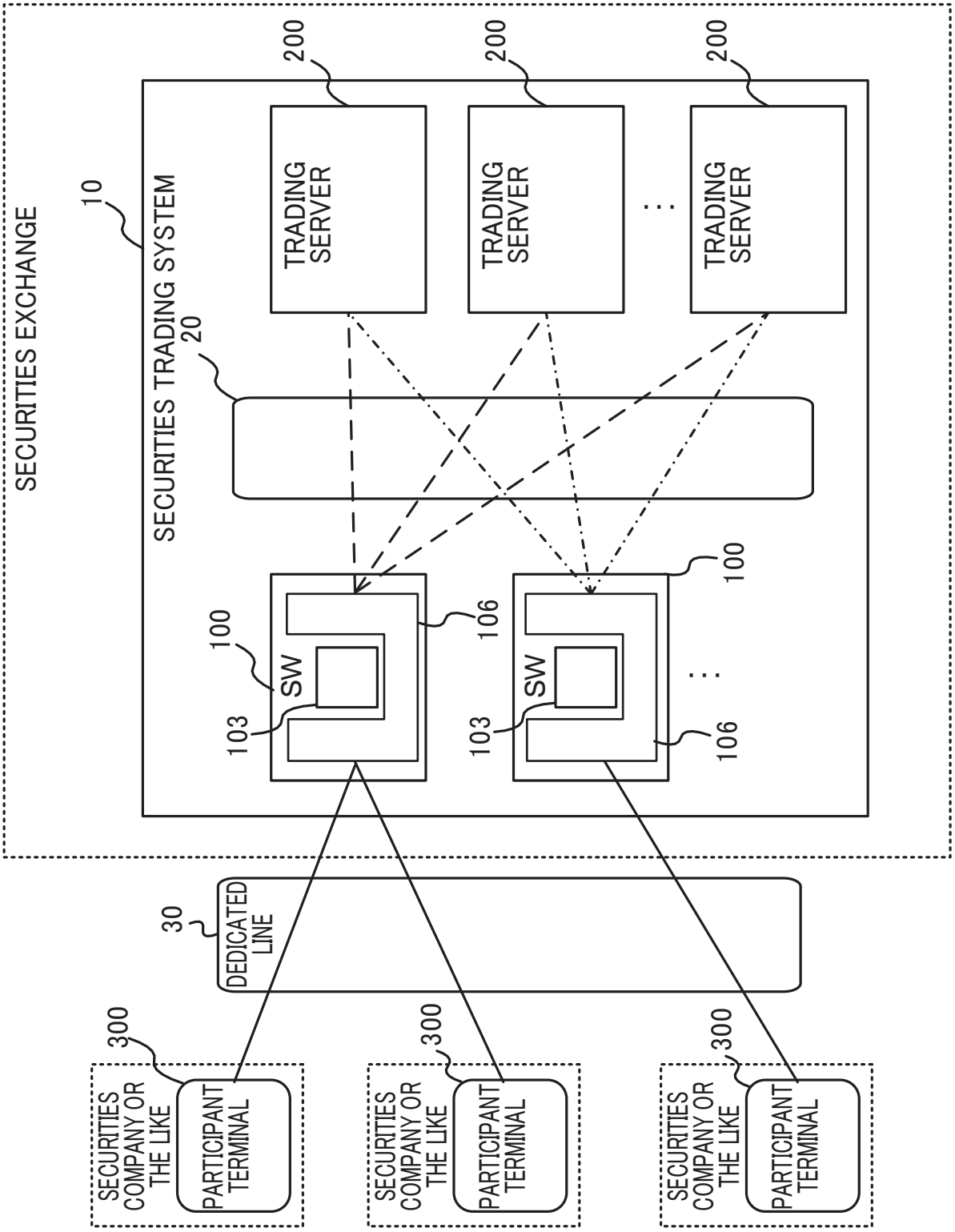

SECURITIES EXCHANGE
10
SECURITIES TRADING SYSTEM
200
TRADING SERVER
200
TRADING SERVER
200
TRADING SERVER
20
100
SW
103
106
100
SW
103
106
100
30
DEDICATED LINE
300
SECURITIES COMPANY OR THE LIKE
PARTICIPANT TERMINAL
300
SECURITIES COMPANY OR THE LIKE
PARTICIPANT TERMINAL
300
SECURITIES COMPANY OR THE LIKE
PARTICIPANT TERMINAL

FIG. 1

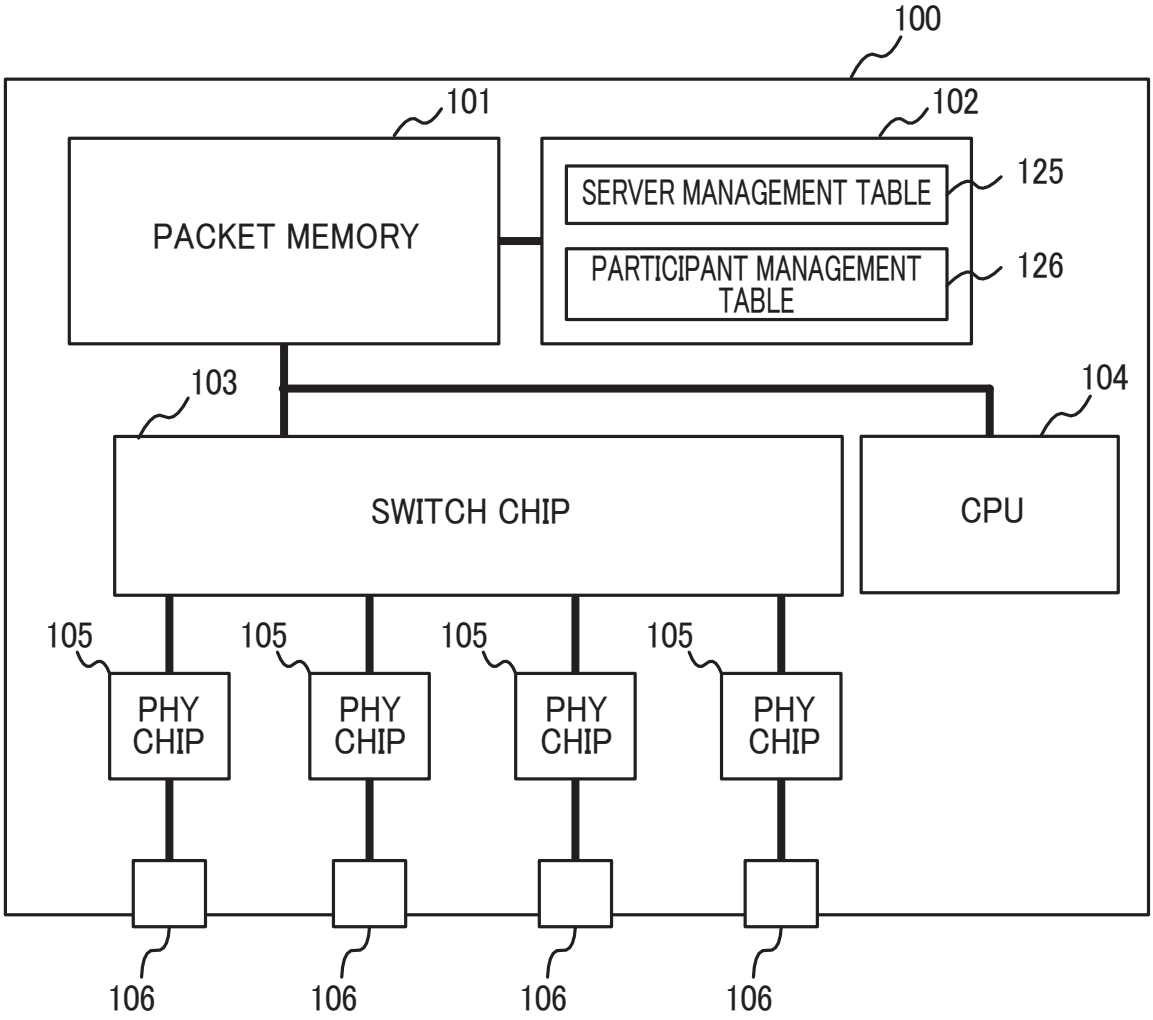

100
101
102
PACKET MEMORY
SERVER MANAGEMENT TABLE
125
PARTICIPANT MANAGEMENT TABLE
126
103
104
SWITCH CHIP
CPU
105
105
105
105
PHY CHIP
PHY CHIP
PHY CHIP
PHY CHIP
106
106
106
106

FIG. 2

125

SERVER MANAGEMENT TABLE

ISSUE CODE	SORTING DESTINATION TRADING SERVER
123	***. 0. 0. 1／・・・・
456	***. 0. 0. 2／・・・・
789	***. 0. 0. 3／・・・・
UNKNOWN	***. 0. 0. 4／・・・・
・・・	・・・

FIG. 3

126

PARTICIPANT MANAGEMENT TABLE

PARTICIPANT TERMINAL IP ADDRESS	PARTICIPANT TERMINAL ID
yyy.0.0.1・・・	22222
yyy.0.0.2・・・	22200
yyy.0.0.3・・・	22210
・・・	・・・

FIG. 4

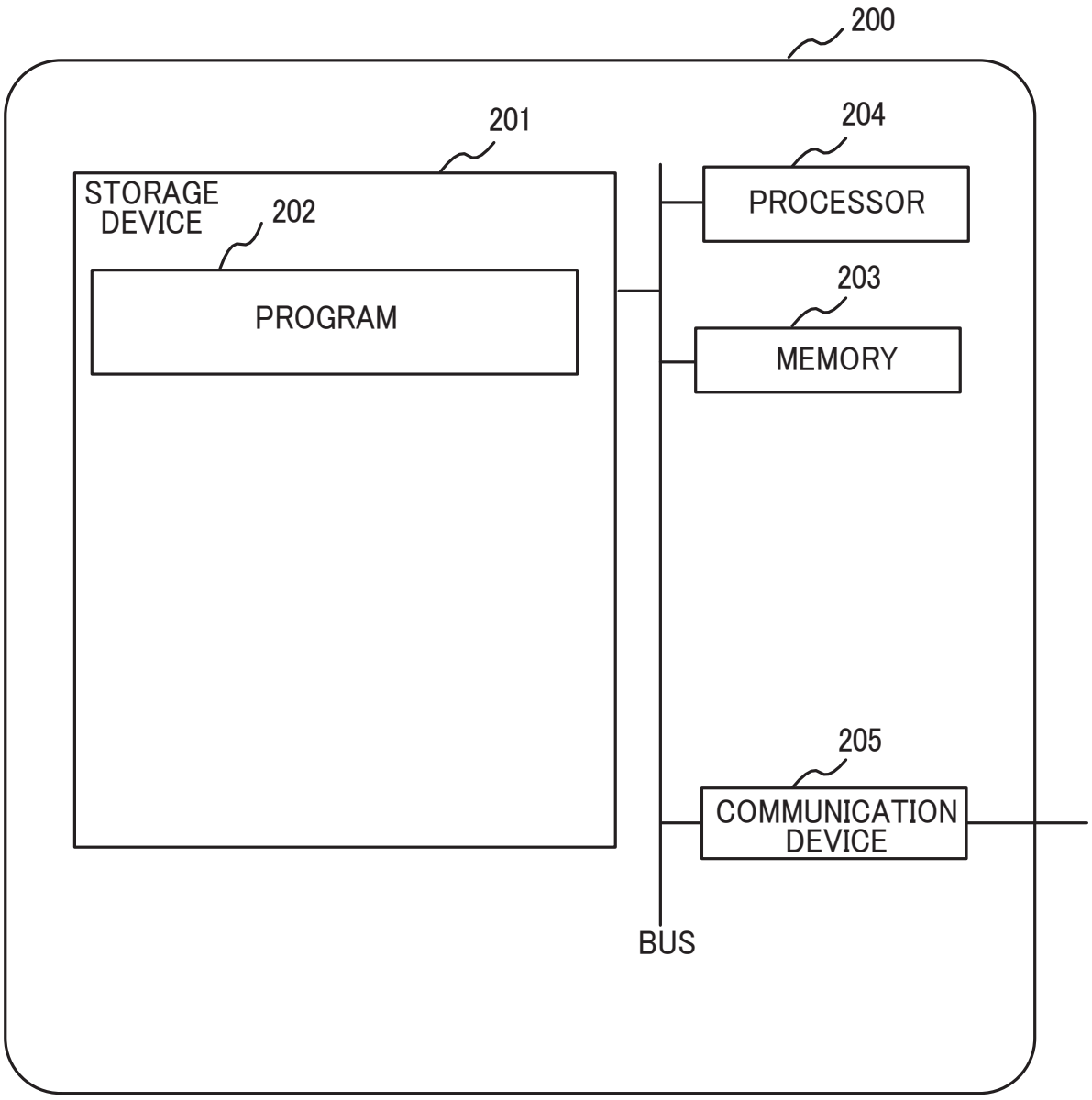

200
201
STORAGE DEVICE
202
PROGRAM
204
PROCESSOR
203
MEMORY
205
COMMUNICATION DEVICE
BUS

FIG. 5

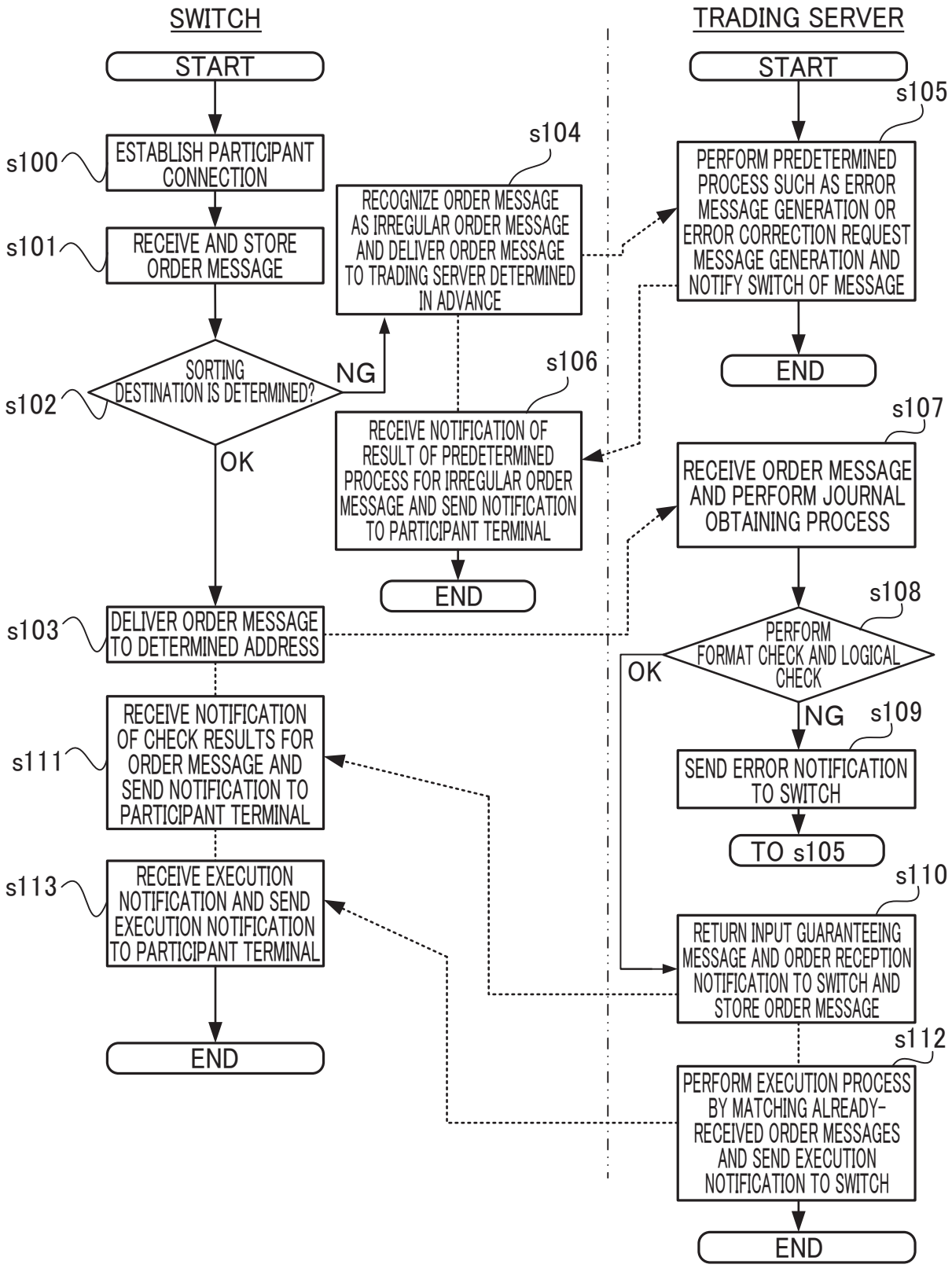

SWITCH
TRADING SERVER
START
ESTABLISH PARTICIPANT CONNECTION
s100
RECEIVE AND STORE ORDER MESSAGE
s101
SORTING DESTINATION IS DETERMINED?
s102
NG
OK
DELIVER ORDER MESSAGE TO DETERMINED ADDRESS
s103
RECEIVE NOTIFICATION OF CHECK RESULTS FOR ORDER MESSAGE AND SEND NOTIFICATION TO PARTICIPANT TERMINAL
s111
RECEIVE EXECUTION NOTIFICATION AND SEND EXECUTION NOTIFICATION TO PARTICIPANT TERMINAL
s113
END
RECOGNIZE ORDER MESSAGE AS IRREGULAR ORDER MESSAGE AND DELIVER ORDER MESSAGE TO TRADING SERVER DETERMINED IN ADVANCE
s104
RECEIVE NOTIFICATION OF RESULT OF PREDETERMINED PROCESS FOR IRREGULAR ORDER MESSAGE AND SEND NOTIFICATION TO PARTICIPANT TERMINAL
s106
END
START
PERFORM PREDETERMINED PROCESS SUCH AS ERROR MESSAGE GENERATION OR ERROR CORRECTION REQUEST MESSAGE GENERATION AND NOTIFY SWITCH OF MESSAGE
s105
END
RECEIVE ORDER MESSAGE AND PERFORM JOURNAL OBTAINING PROCESS
s107
PERFORM FORMAT CHECK AND LOGICAL CHECK
s108
OK
NG
SEND ERROR NOTIFICATION TO SWITCH
s109
TO s105
RETURN INPUT GUARANTEEING MESSAGE AND ORDER RECEPTION NOTIFICATION TO SWITCH AND STORE ORDER MESSAGE
s110
PERFORM EXECUTION PROCESS BY MATCHING ALREADY-RECEIVED ORDER MESSAGES AND SEND EXECUTION NOTIFICATION TO SWITCH
s112
END

FIG. 6

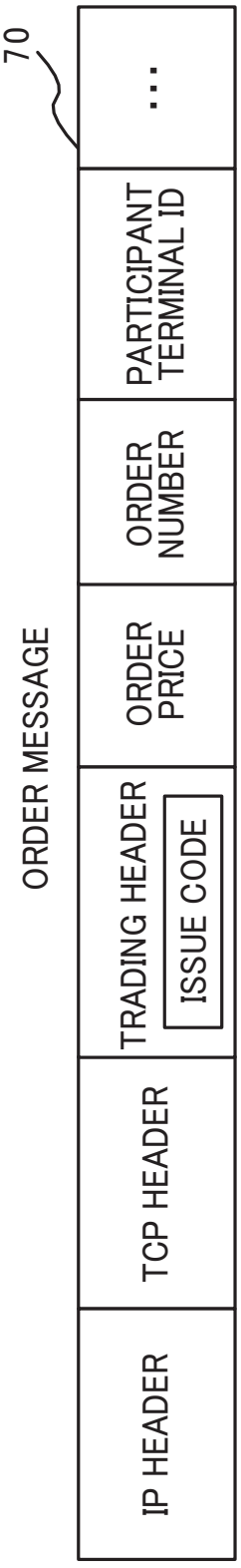

70
ORDER MESSAGE
IP HEADER
TCP HEADER
TRADING HEADER
ISSUE CODE
ORDER PRICE
ORDER NUMBER
PARTICIPANT TERMINAL ID
...

FIG. 7

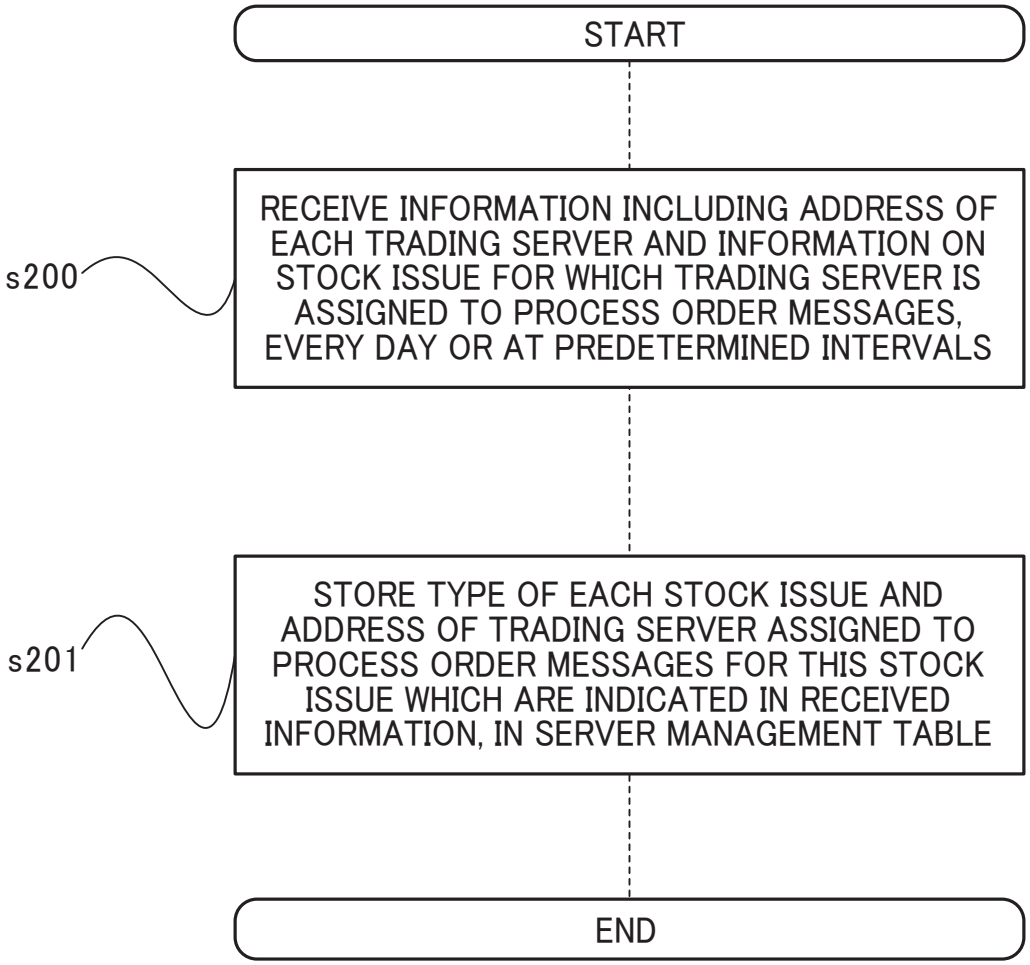

START
RECEIVE INFORMATION INCLUDING ADDRESS OF EACH TRADING SERVER AND INFORMATION ON STOCK ISSUE FOR WHICH TRADING SERVER IS ASSIGNED TO PROCESS ORDER MESSAGES, EVERY DAY OR AT PREDETERMINED INTERVALS
s200
STORE TYPE OF EACH STOCK ISSUE AND ADDRESS OF TRADING SERVER ASSIGNED TO PROCESS ORDER MESSAGES FOR THIS STOCK ISSUE WHICH ARE INDICATED IN RECEIVED INFORMATION, IN SERVER MANAGEMENT TABLE
s201
END

FIG. 8