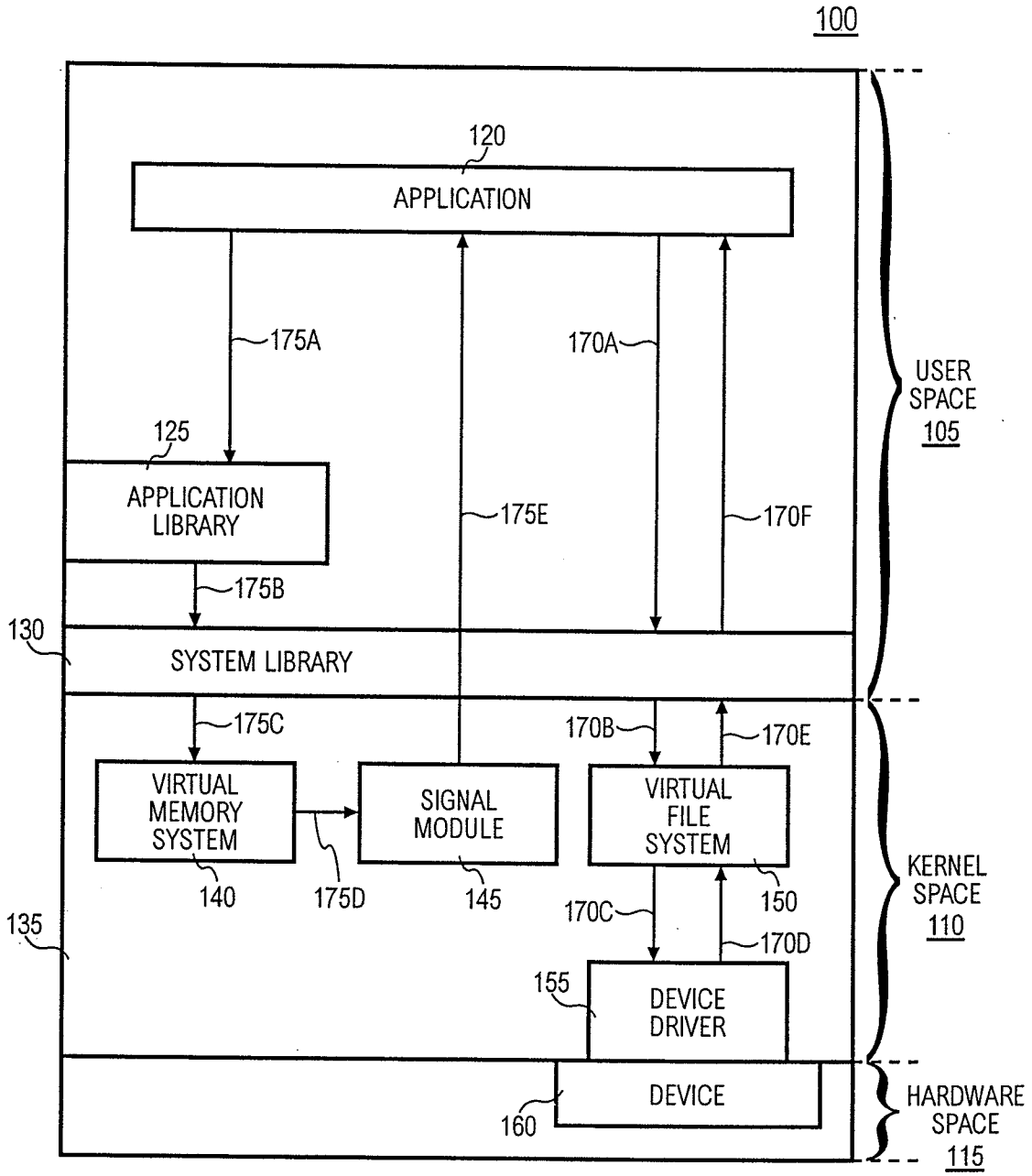


FIG. 1 (PRIOR ART)

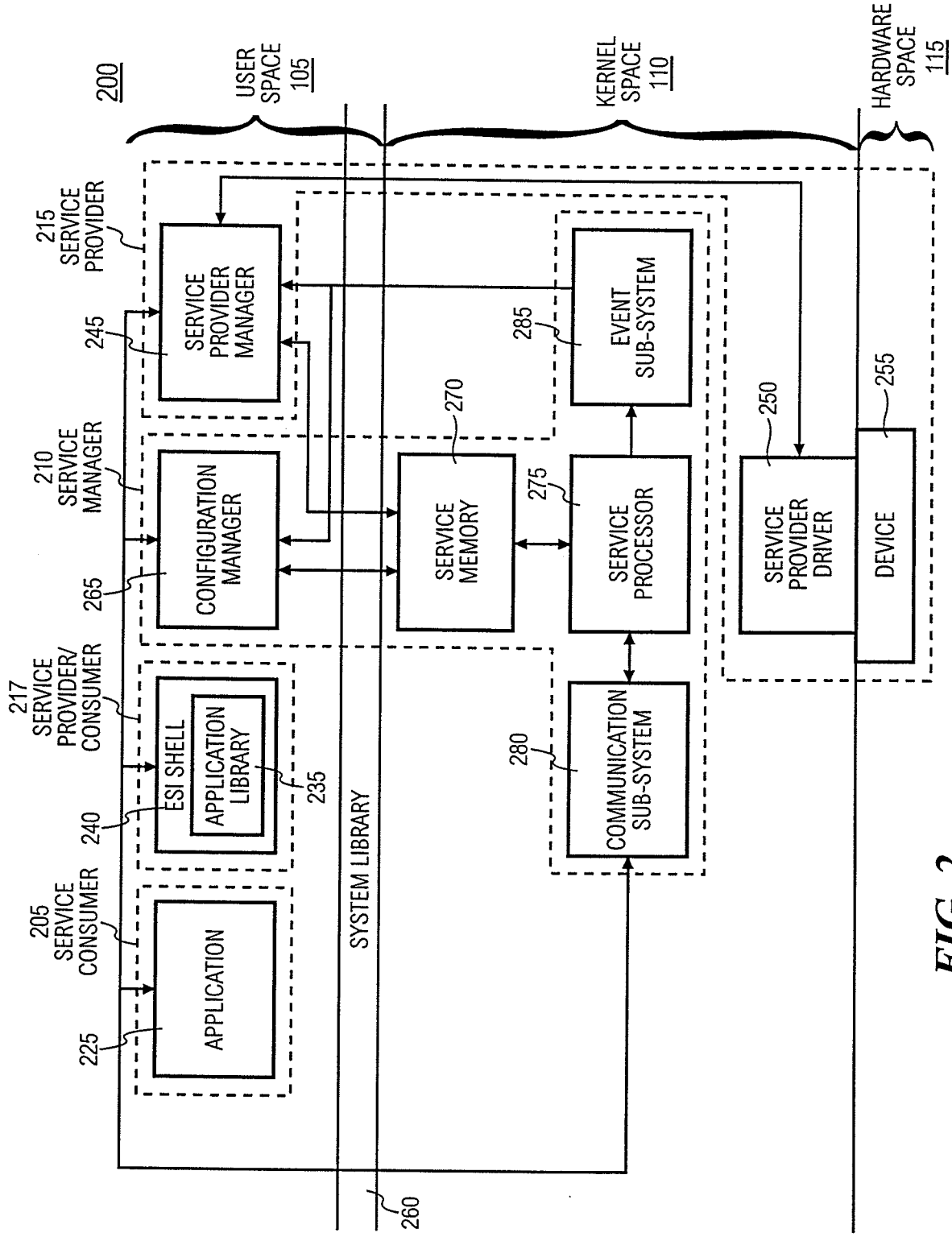

200
USER SPACE 105
KERNEL SPACE 110
HARDWARE SPACE 115
215 SERVICE PROVIDER
245
SERVICE PROVIDER MANAGER
285
EVENT SUB-SYSTEM
210 SERVICE MANAGER
265
CONFIGURATION MANAGER
270
SERVICE MEMORY
275
SERVICE PROCESSOR
250
SERVICE PROVIDER DRIVER
255
DEVICE
217 SERVICE PROVIDER/ CONSUMER
240
ESI SHELL
APPLICATION LIBRARY
235
280
COMMUNICATION SUB-SYSTEM
205 SERVICE CONSUMER
225
APPLICATION
SYSTEM LIBRARY
260

FIG. 2

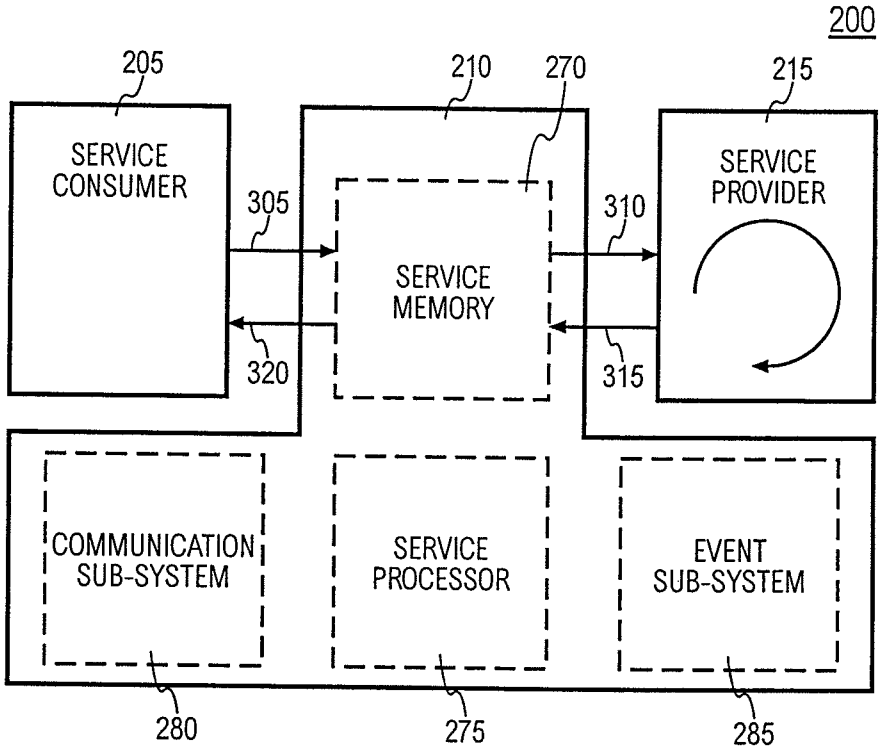

200
205
210
270
215
SERVICE CONSUMER
305
SERVICE MEMORY
310
SERVICE PROVIDER
320
315
COMMUNICATION SUB-SYSTEM
SERVICE PROCESSOR
EVENT SUB-SYSTEM
280
275
285

FIG. 3

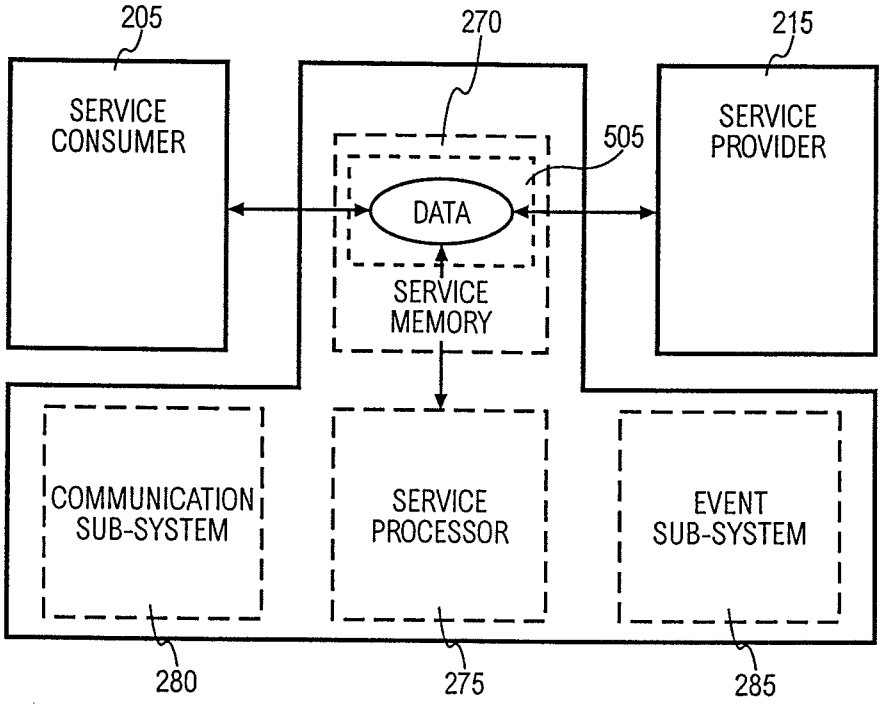

205
270
215
SERVICE CONSUMER
505
SERVICE PROVIDER
DATA
SERVICE MEMORY
COMMUNICATION SUB-SYSTEM
SERVICE PROCESSOR
EVENT SUB-SYSTEM
280
275
285

FIG. 5A

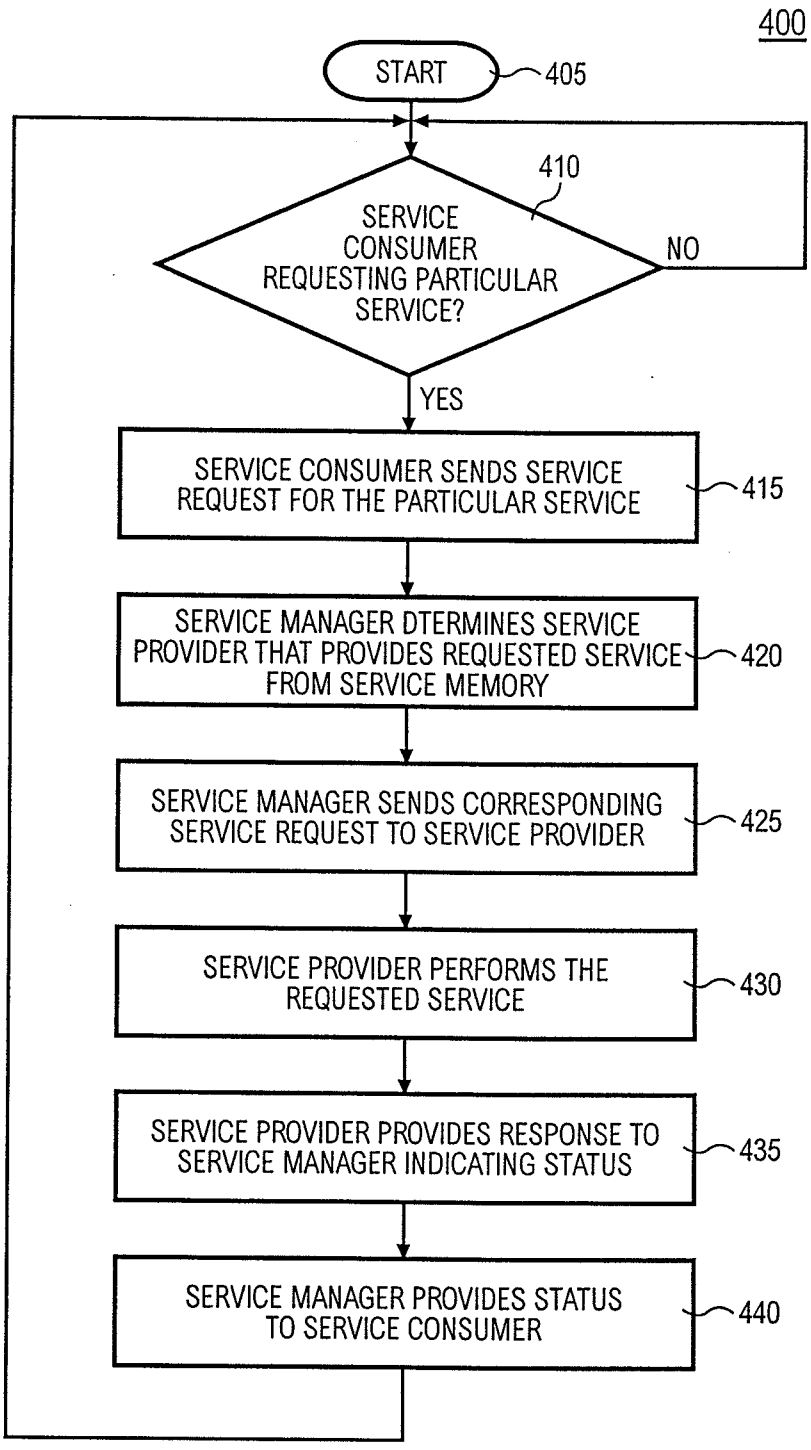

400
START
405
410
SERVICE CONSUMER REQUESTING PARTICULAR SERVICE?
NO
YES
SERVICE CONSUMER SENDS SERVICE REQUEST FOR THE PARTICULAR SERVICE
415
SERVICE MANAGER DTERMINES SERVICE PROVIDER THAT PROVIDES REQUESTED SERVICE FROM SERVICE MEMORY
420
SERVICE MANAGER SENDS CORRESPONDING SERVICE REQUEST TO SERVICE PROVIDER
425
SERVICE PROVIDER PERFORMS THE REQUESTED SERVICE
430
SERVICE PROVIDER PROVIDES RESPONSE TO SERVICE MANAGER INDICATING STATUS
435
SERVICE MANAGER PROVIDES STATUS TO SERVICE CONSUMER
440

FIG. 4

20 JUN 2005

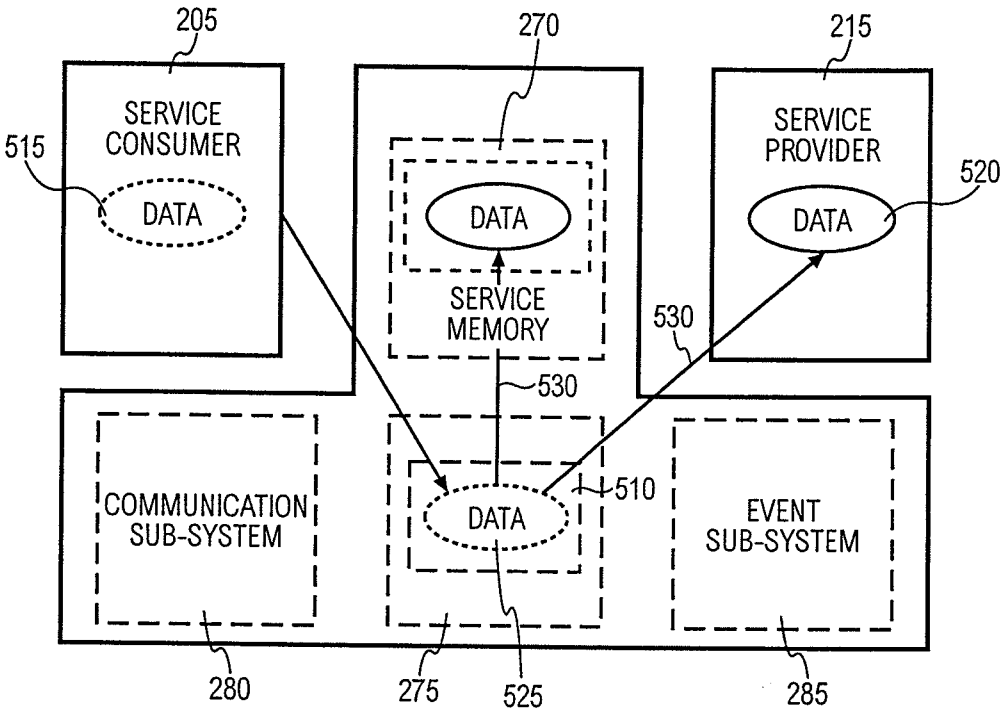


FIG. 5B

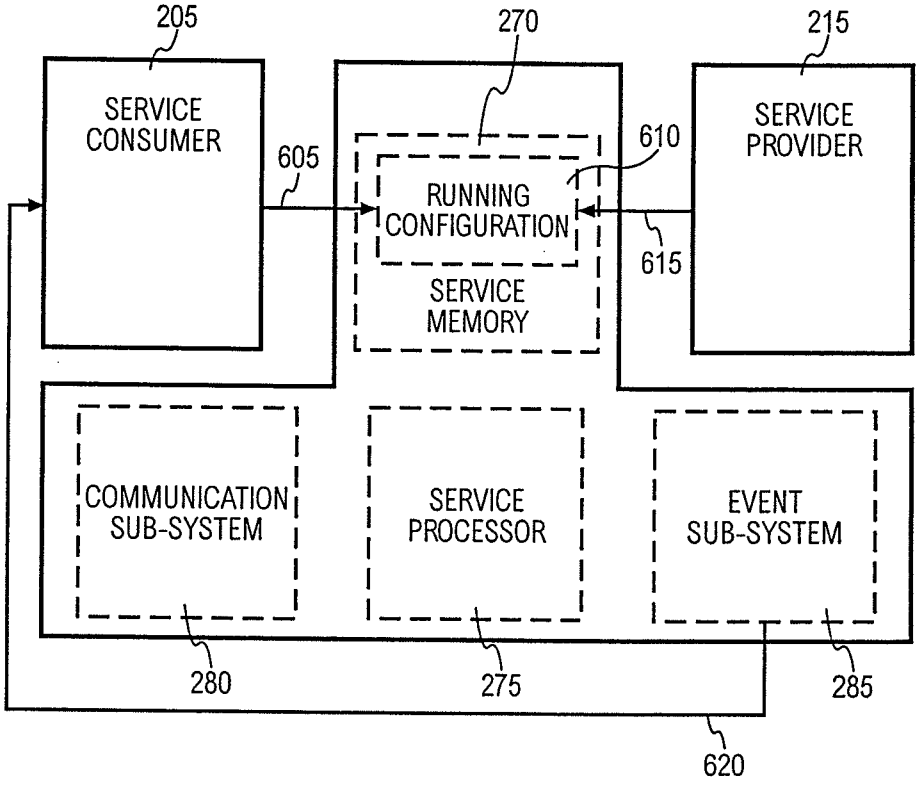


FIG. 6A

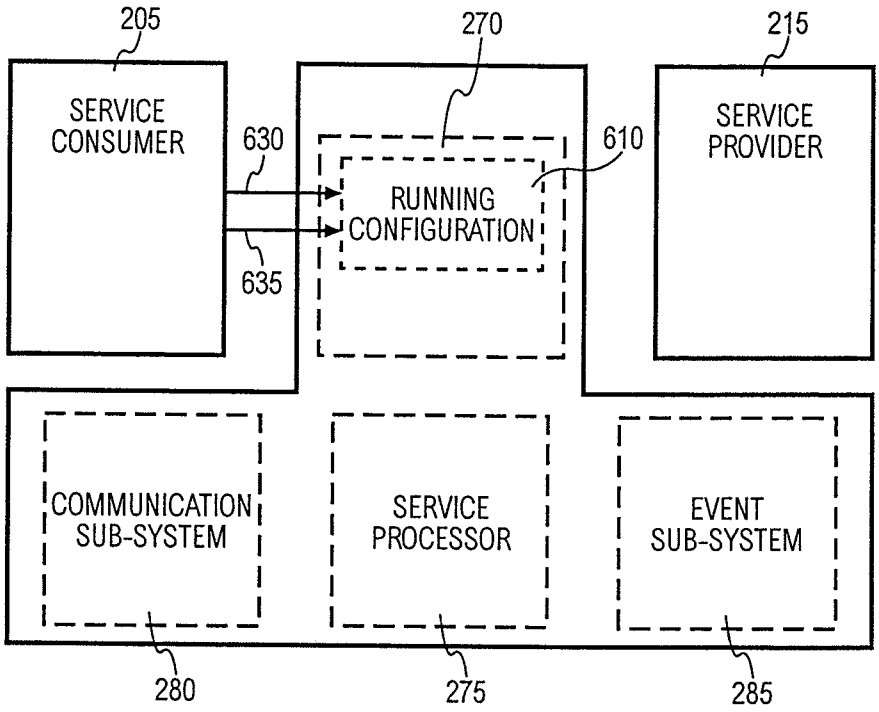

205
270
215
SERVICE CONSUMER
630
610
SERVICE PROVIDER
RUNNING CONFIGURATION
635
COMMUNICATION SUB-SYSTEM
SERVICE PROCESSOR
EVENT SUB-SYSTEM
280
275
285

FIG. 6B

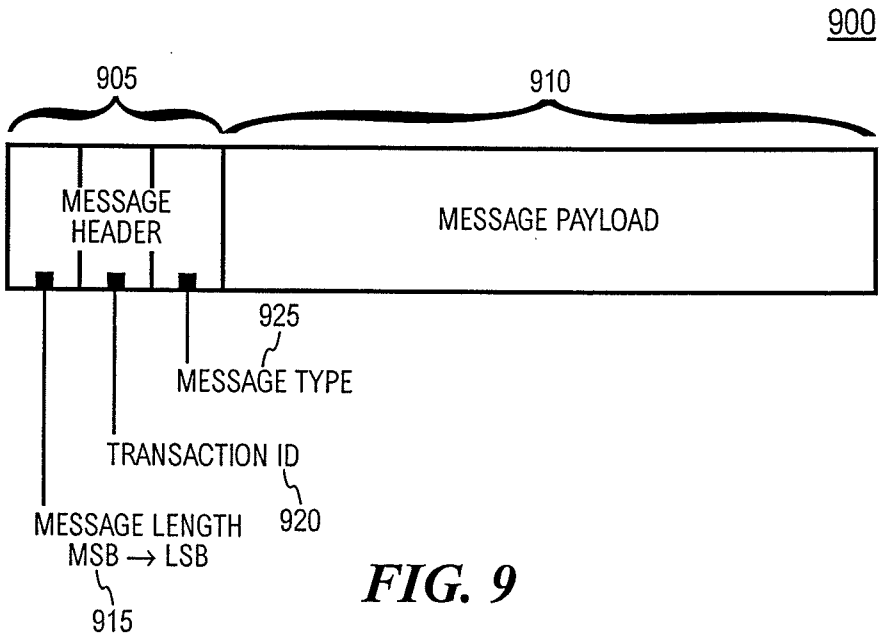

900
905
910
MESSAGE HEADER
MESSAGE PAYLOAD
925
MESSAGE TYPE
TRANSACTION ID
920
MESSAGE LENGTH
MSB → LSB
915

FIG. 9

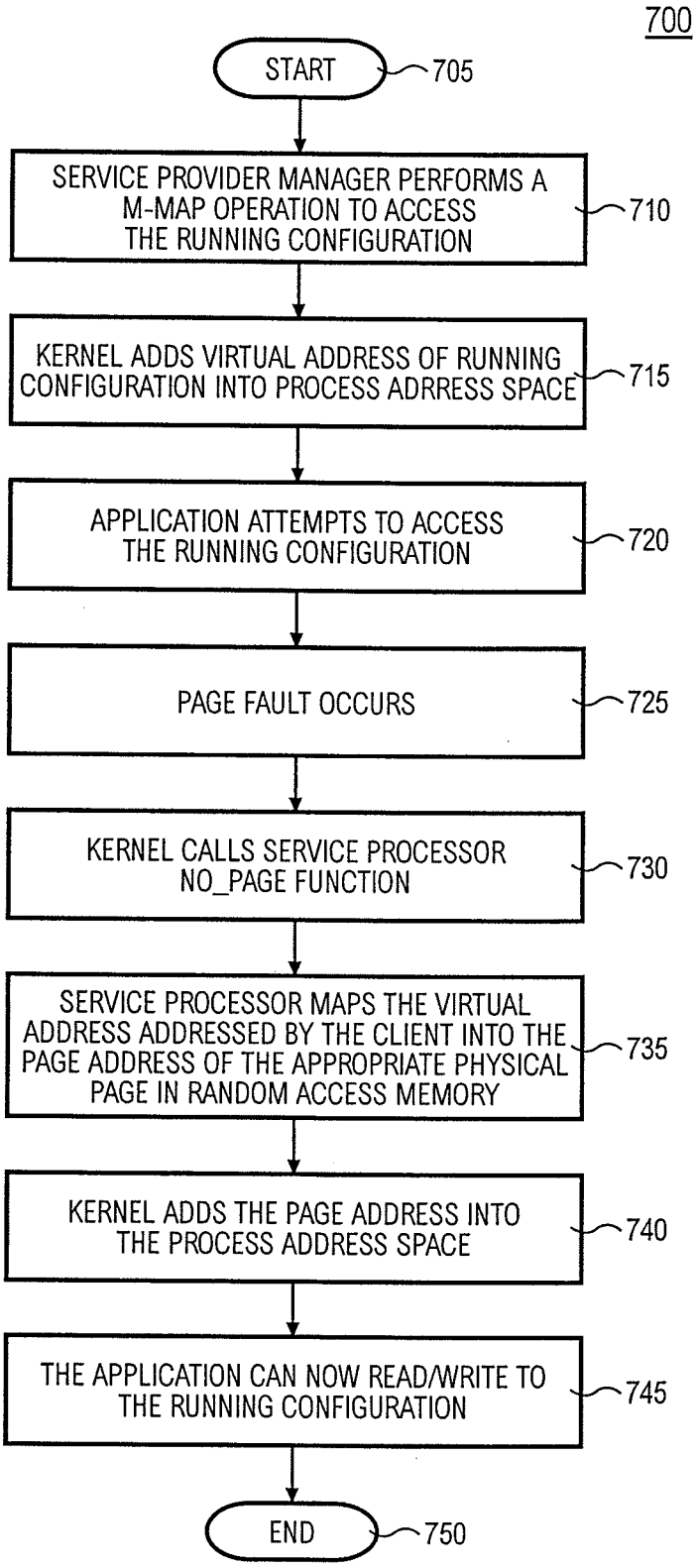

700
START
705
SERVICE PROVIDER MANAGER PERFORMS A M-MAP OPERATION TO ACCESS THE RUNNING CONFIGURATION
710
KERNEL ADDS VIRTUAL ADDRESS OF RUNNING CONFIGURATION INTO PROCESS ADRRESS SPACE
715
APPLICATION ATTEMPTS TO ACCESS THE RUNNING CONFIGURATION
720
PAGE FAULT OCCURS
725
KERNEL CALLS SERVICE PROCESSOR NO_PAGE FUNCTION
730
SERVICE PROCESSOR MAPS THE VIRTUAL ADDRESS ADDRESSED BY THE CLIENT INTO THE PAGE ADDRESS OF THE APPROPRIATE PHYSICAL PAGE IN RANDOM ACCESS MEMORY
735
KERNEL ADDS THE PAGE ADDRESS INTO THE PROCESS ADDRESS SPACE
740
THE APPLICATION CAN NOW READ/WRITE TO THE RUNNING CONFIGURATION
745
END
750

FIG. 7

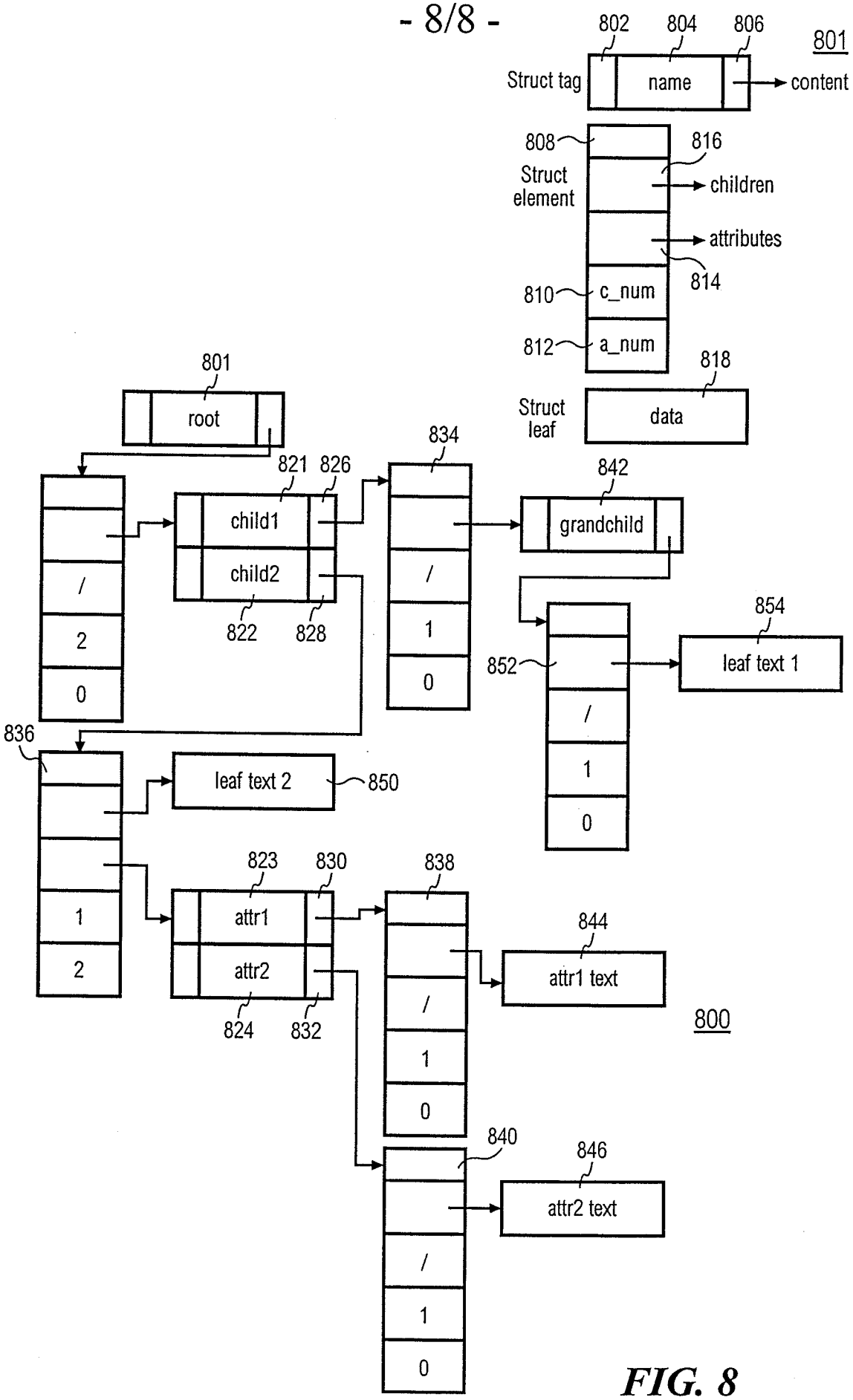

802
804
806
801
Struct tag
name
content
808
816
Struct element
children
attributes
814
810
c_num
812
a_num
818
Struct leaf
data
801
root
821
826
834
842
child1
child2
grandchild
822
828
/
2
0
1
854
852
leaf text 1
836
leaf text 2
850
823
830
838
attr1
attr2
844
attr1 text
824
832
800
840
846
attr2 text

FIG. 8