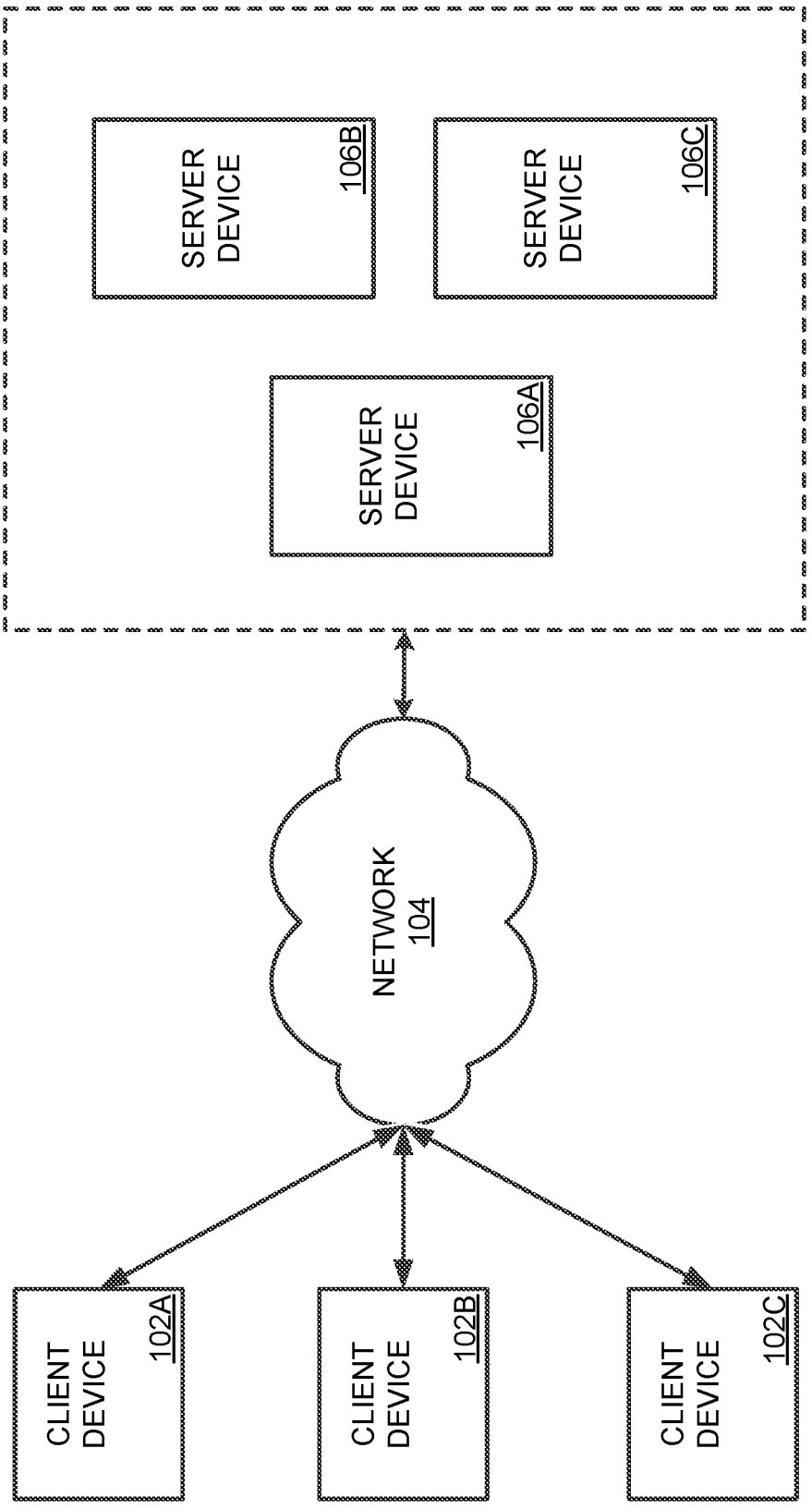
SERVER DEVICE 106B
SERVER DEVICE 106C
SERVER DEVICE 106A
NETWORK 104
CLIENT DEVICE 102A
CLIENT DEVICE 102B
CLIENT DEVICE 102C
100

Figure 1

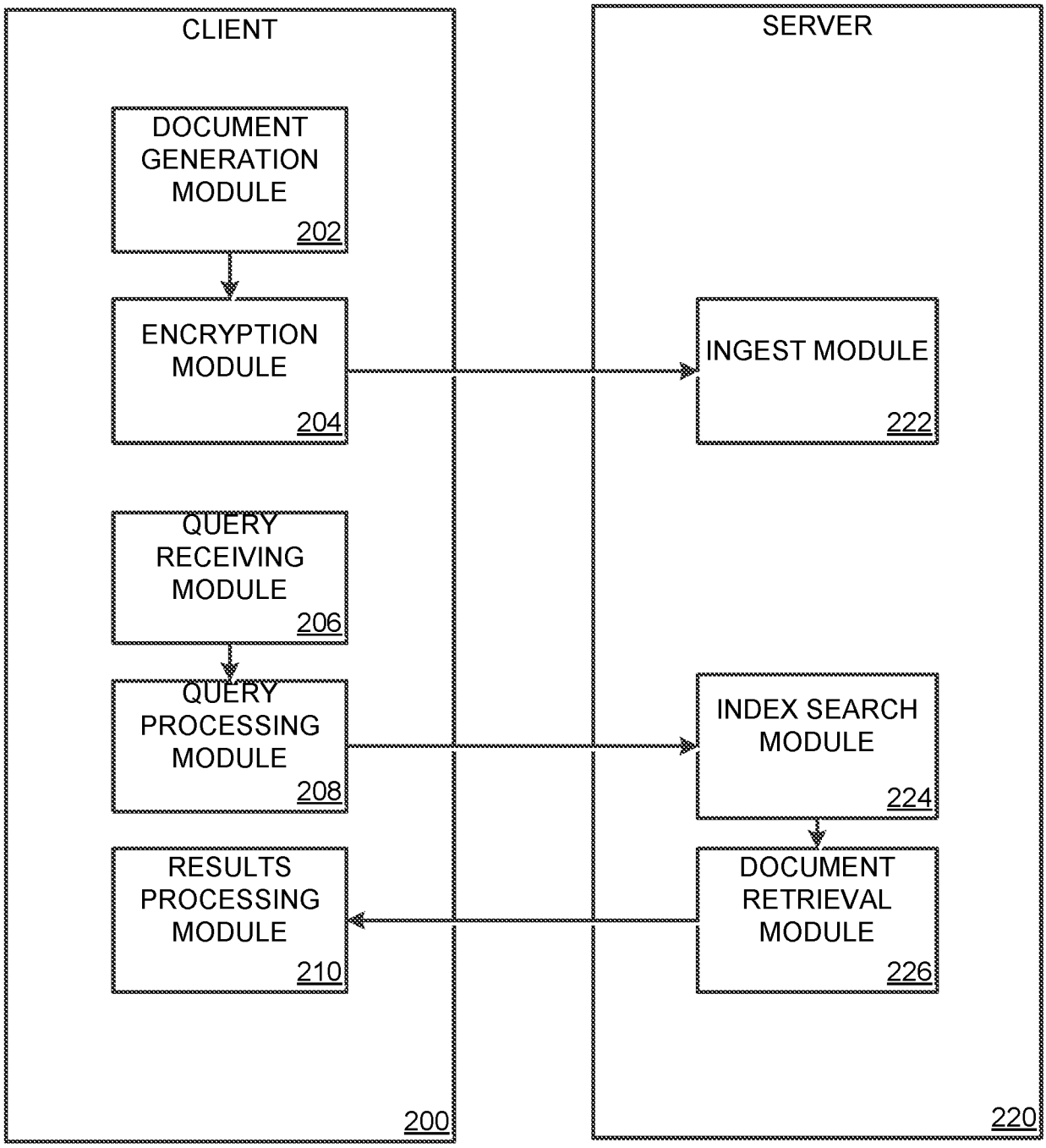

Figure 2A **Figure 2B**

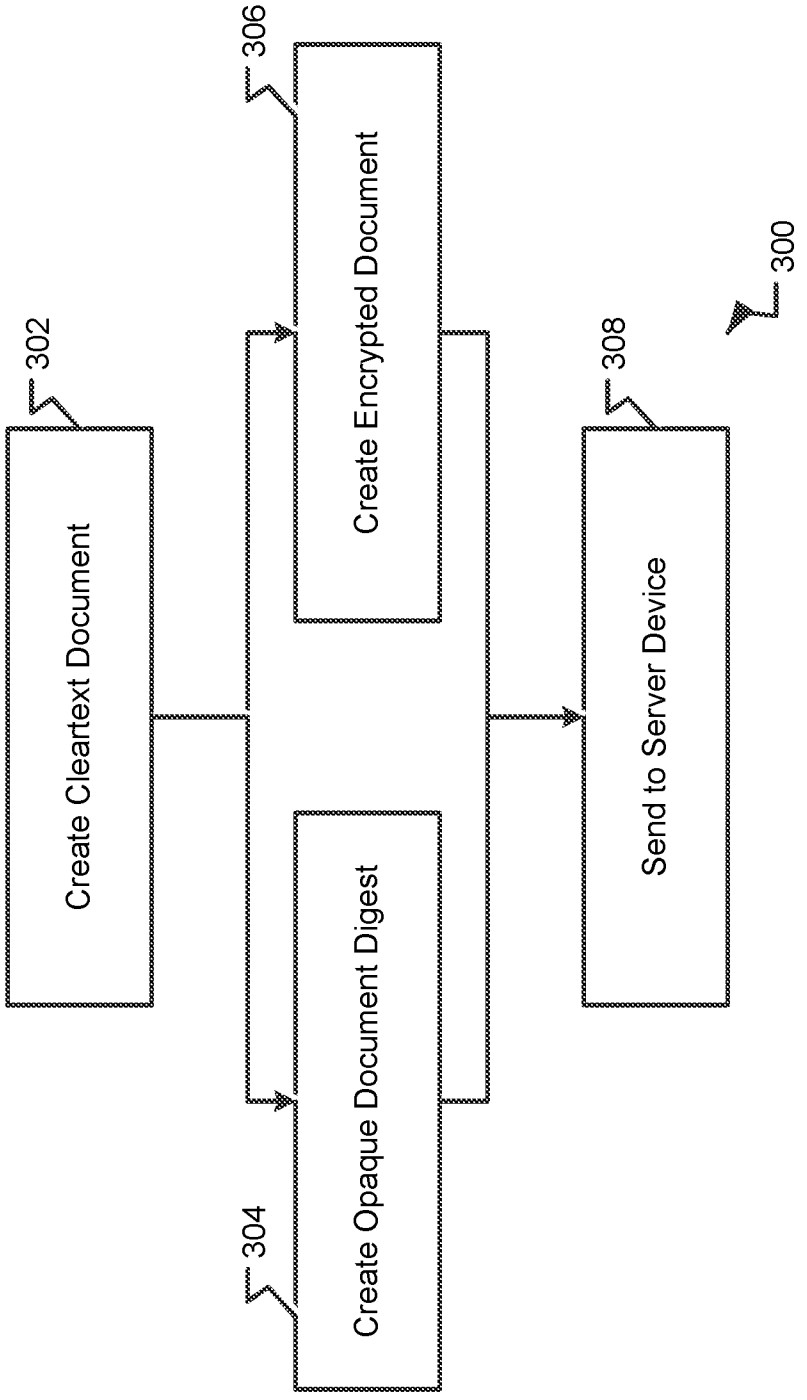
Create Cleartext Document
302
Create Encrypted Document
306
Create Opaque Document Digest
304
Send to Server Device
308
300

Figure 3

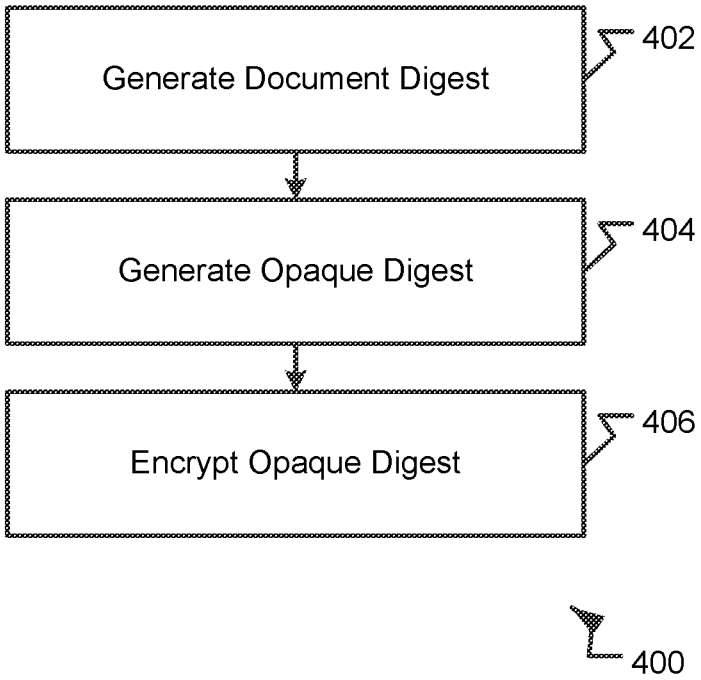

Figure 4A

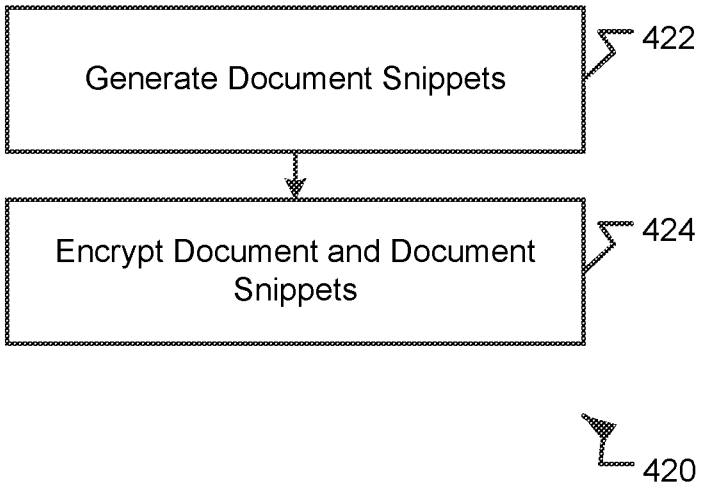

Figure 4B

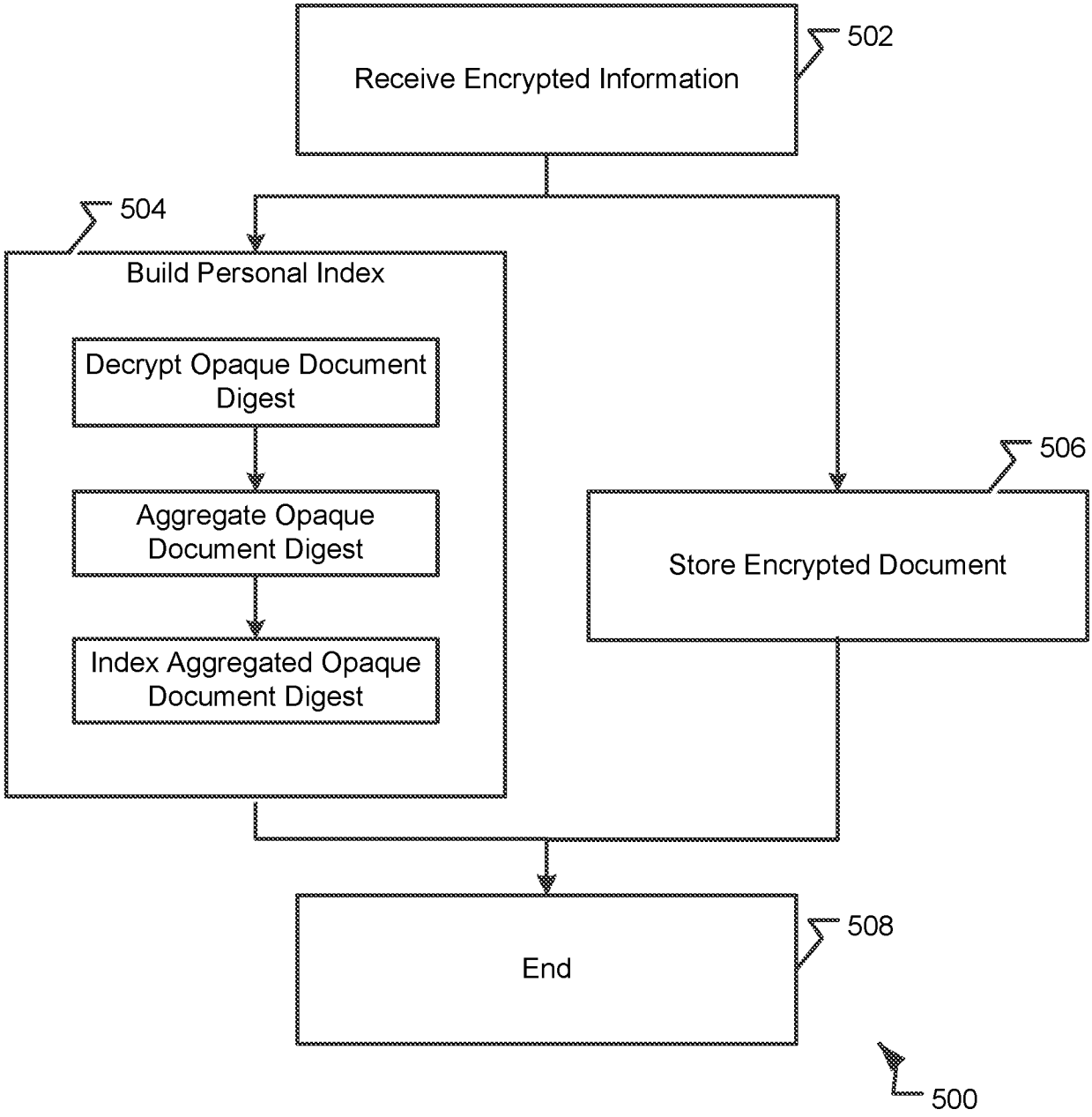
Receive Encrypted Information
502
504
Build Personal Index
Decrypt Opaque Document Digest
Aggregate Opaque Document Digest
Index Aggregated Opaque Document Digest
506
Store Encrypted Document
End
508
500

Figure 5

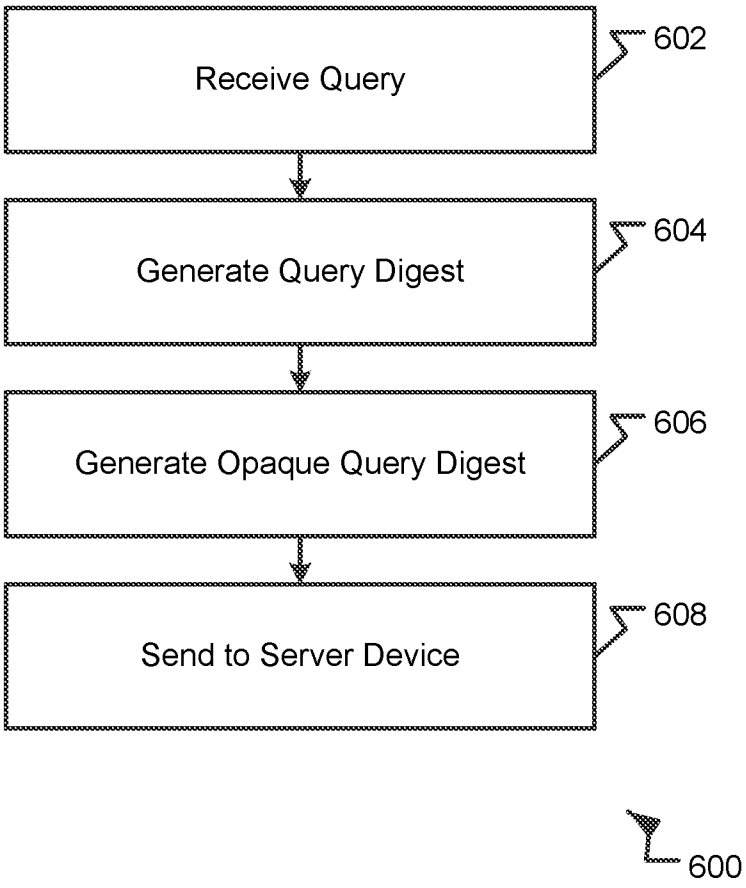
Receive Query
602
Generate Query Digest
604
Generate Opaque Query Digest
606
Send to Server Device
608
600

Figure 6

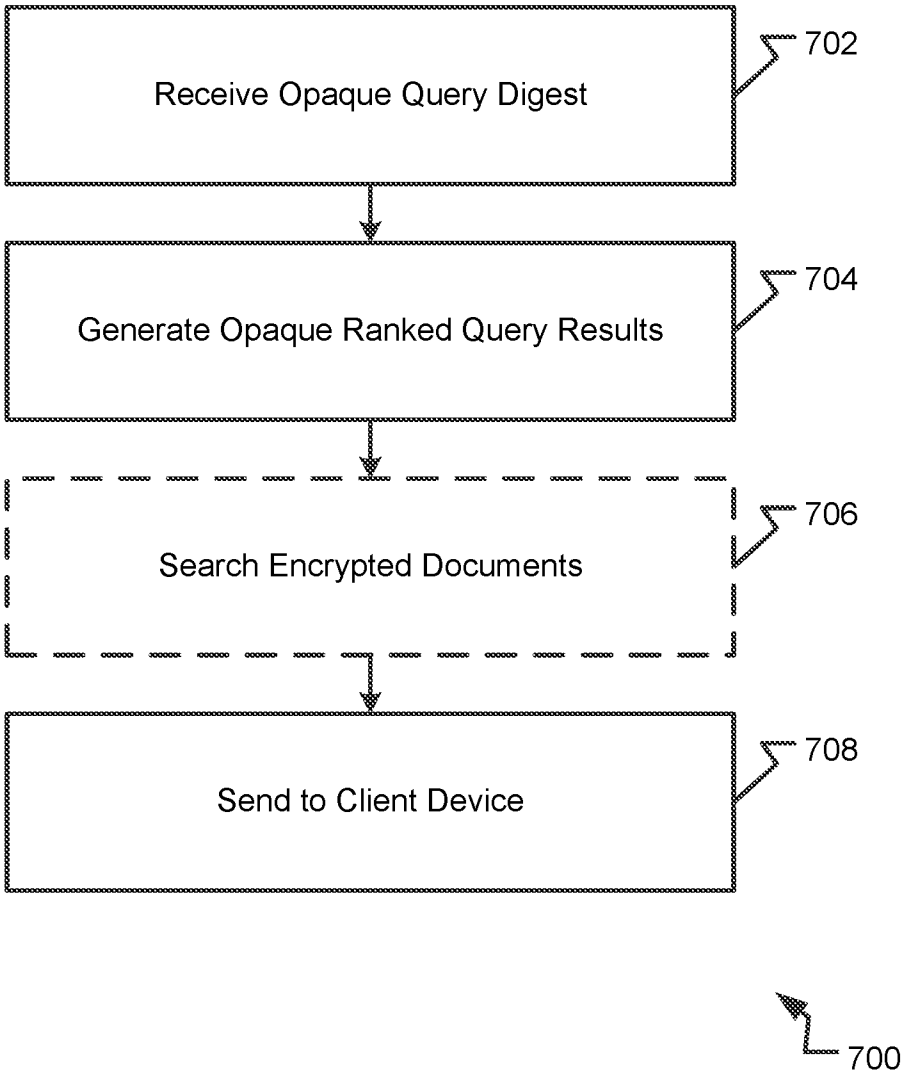
Receive Opaque Query Digest
702
Generate Opaque Ranked Query Results
704
Search Encrypted Documents
706
Send to Client Device
708
700

Figure 7

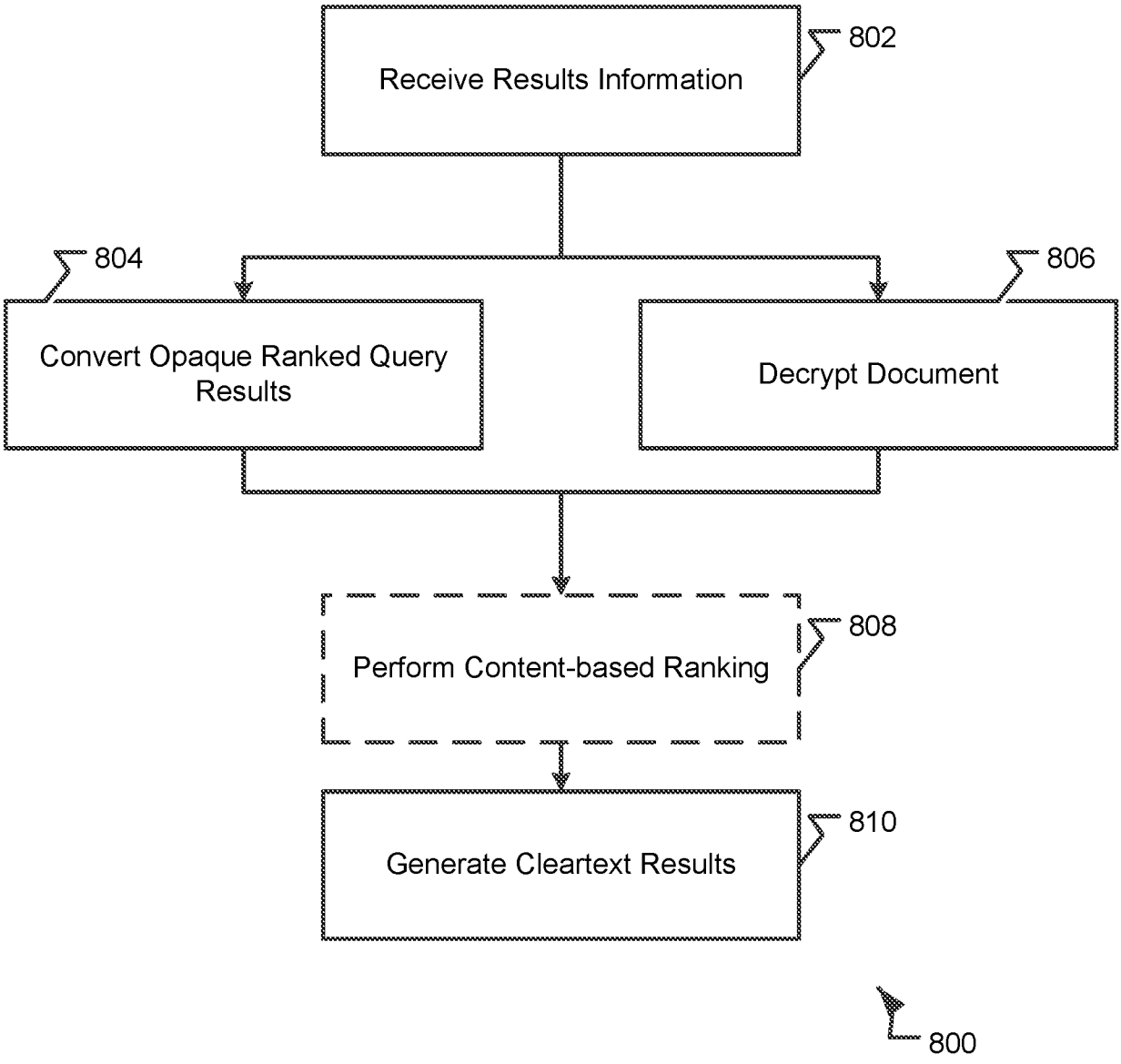
Receive Results Information
802
804
Convert Opaque Ranked Query Results
806
Decrypt Document
Perform Content-based Ranking
808
Generate Cleartext Results
810
800

Figure 8

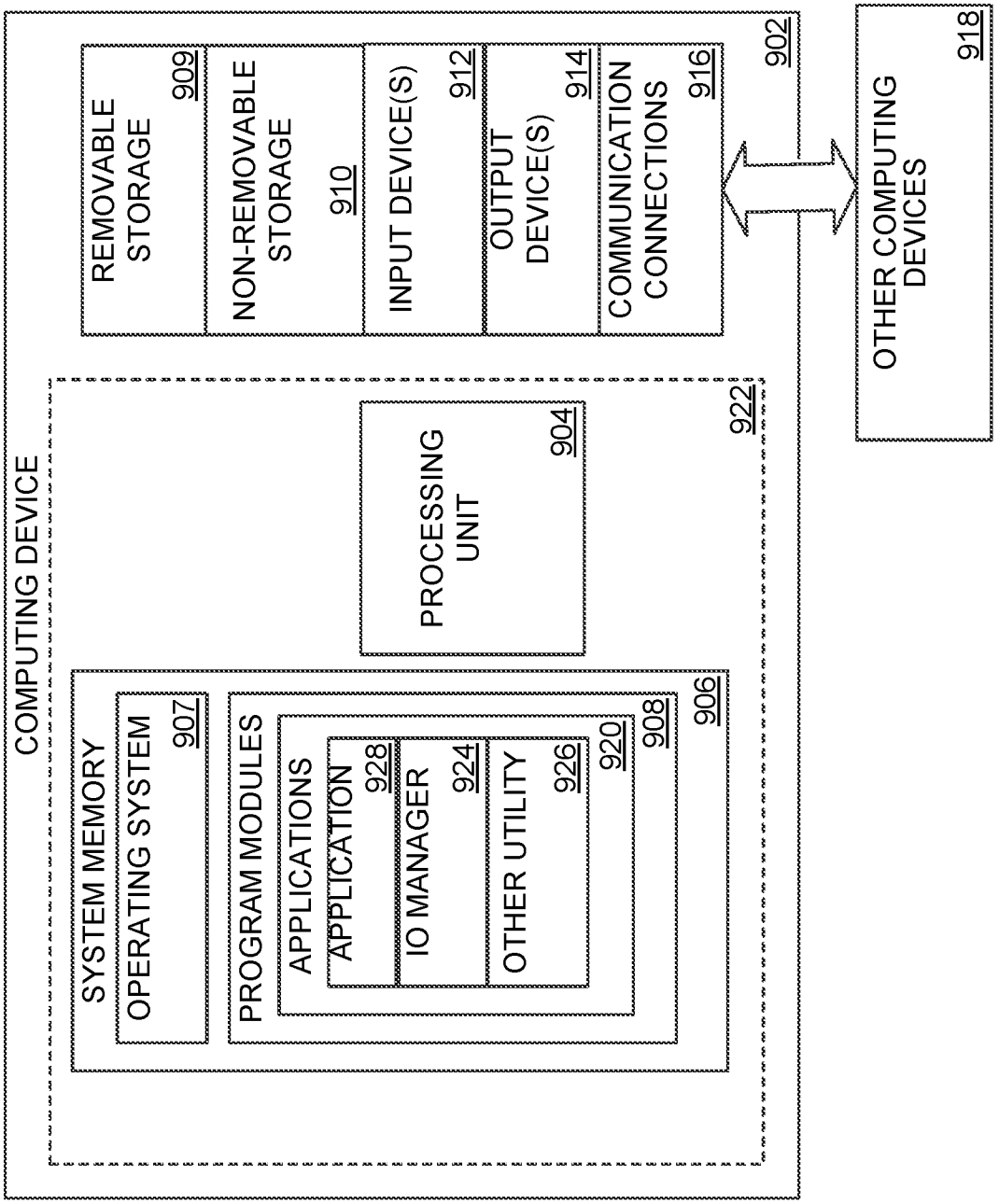
COMPUTING DEVICE
SYSTEM MEMORY
OPERATING SYSTEM
907
PROGRAM MODULES
APPLICATIONS
APPLICATION
928
IO MANAGER
924
OTHER UTILITY
926
920
908
906
PROCESSING UNIT
904
922
REMOVABLE STORAGE
909
NON-REMOVABLE STORAGE
910
INPUT DEVICE(S)
912
OUTPUT DEVICE(S)
914
COMMUNICATION CONNECTIONS
916
902
OTHER COMPUTING DEVICES
918

Figure 9

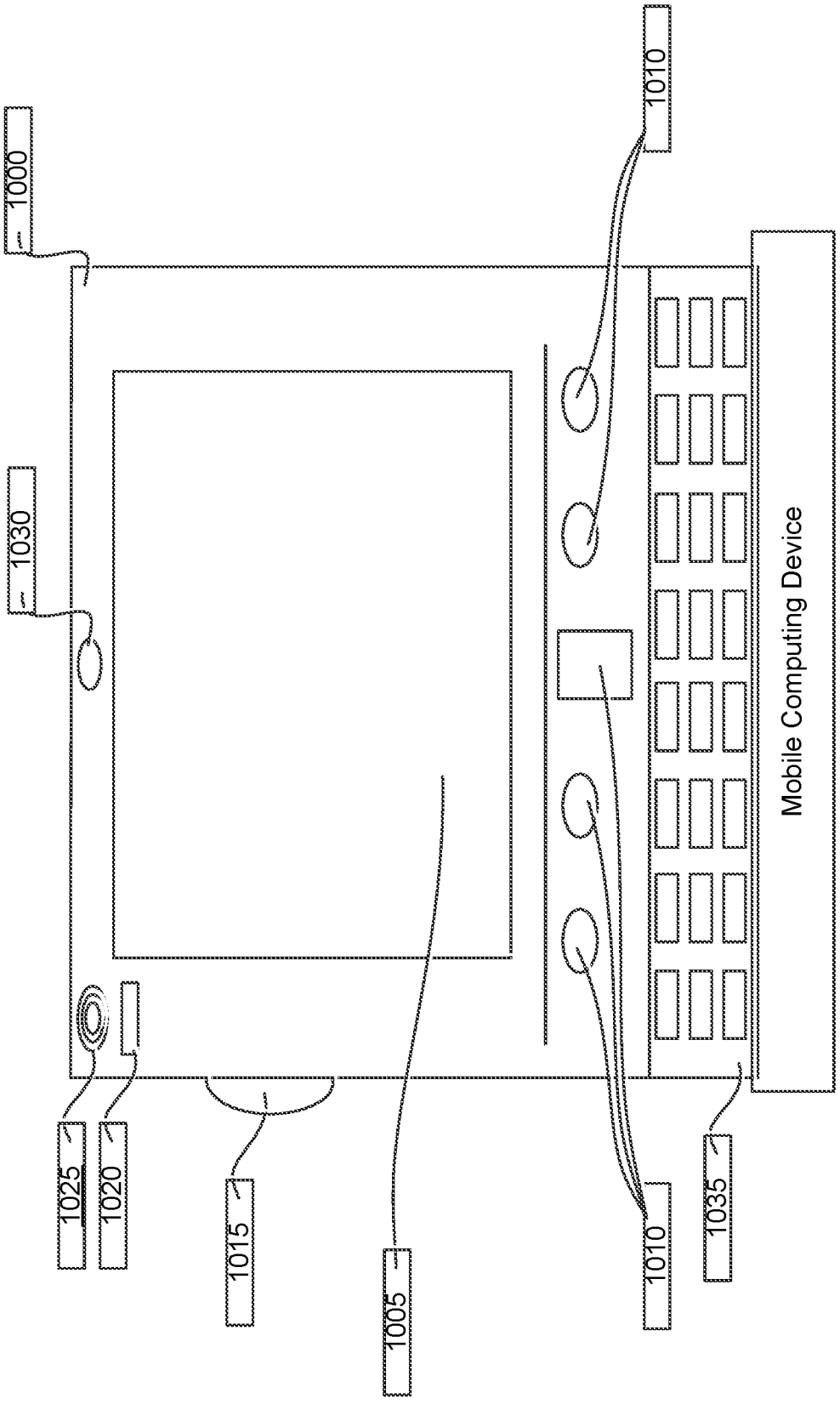
1000
1030
1010
1025
1020
1015
1005
1010
1035
Mobile Computing Device

Figure 10A

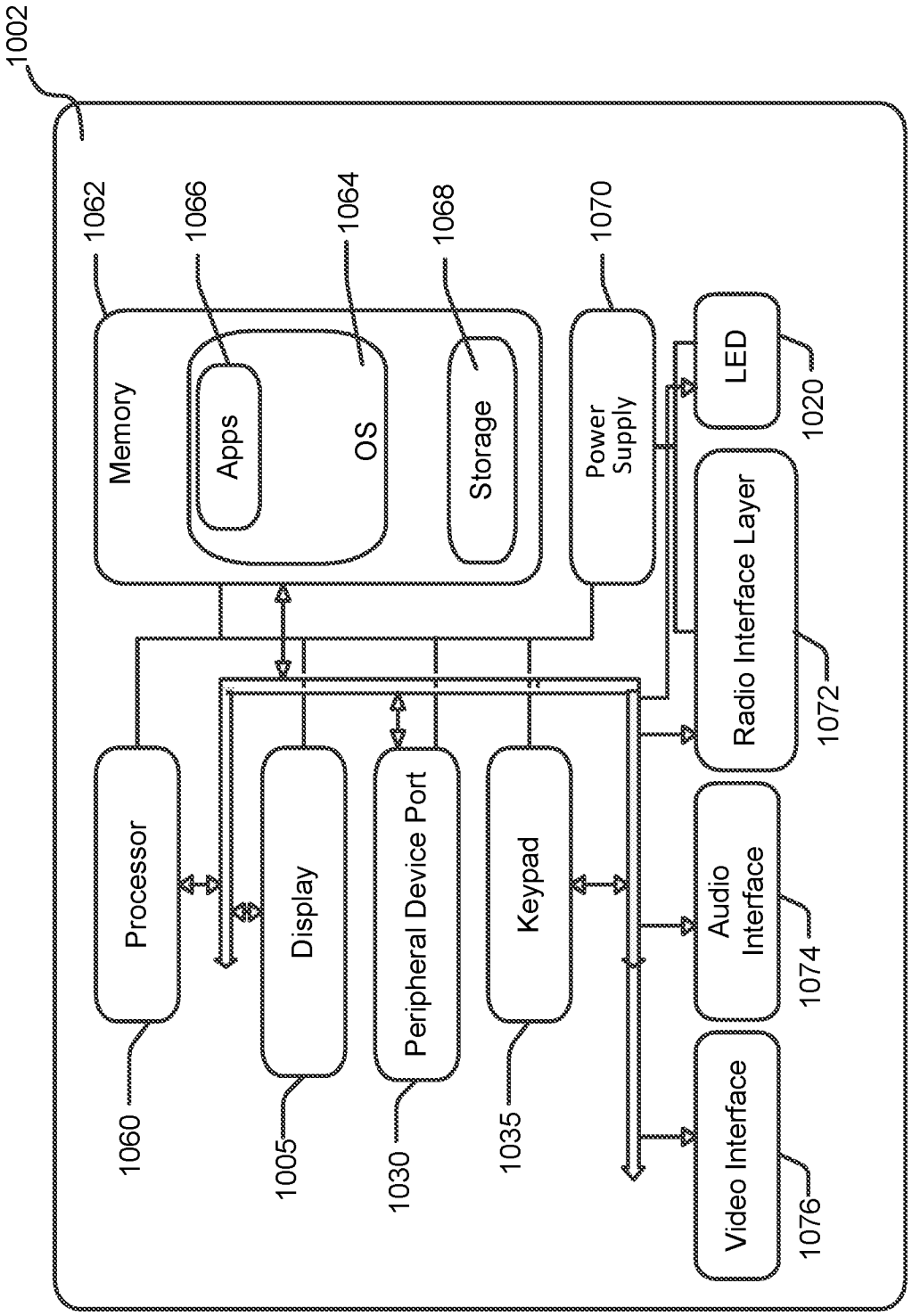
1002
1062
Memory
1066
Apps
1064
OS
1068
Storage
1070
Power Supply
LED
1020
Radio Interface Layer
1072
Processor
1060
Display
1005
Peripheral Device Port
1030
Keypad
1035
Audio Interface
1074
Video Interface
1076

Figure 10B

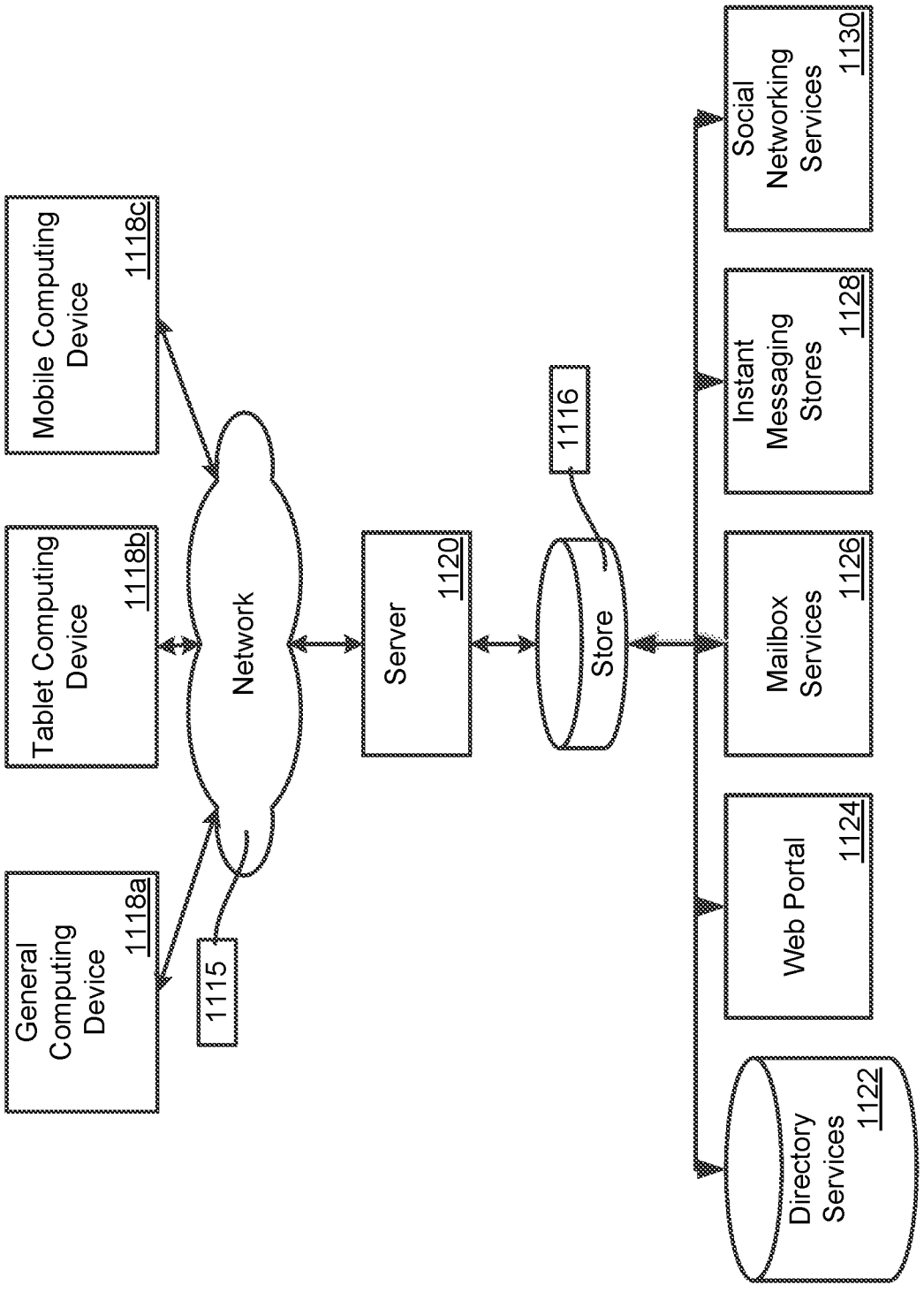
Mobile Computing Device 1118c
Tablet Computing Device 1118b
General Computing Device 1118a
1115
Network
Server 1120
1116
Store
Social Networking Services 1130
Instant Messaging Stores 1128
Mailbox Services 1126
Web Portal 1124
Directory Services 1122

Figure 11