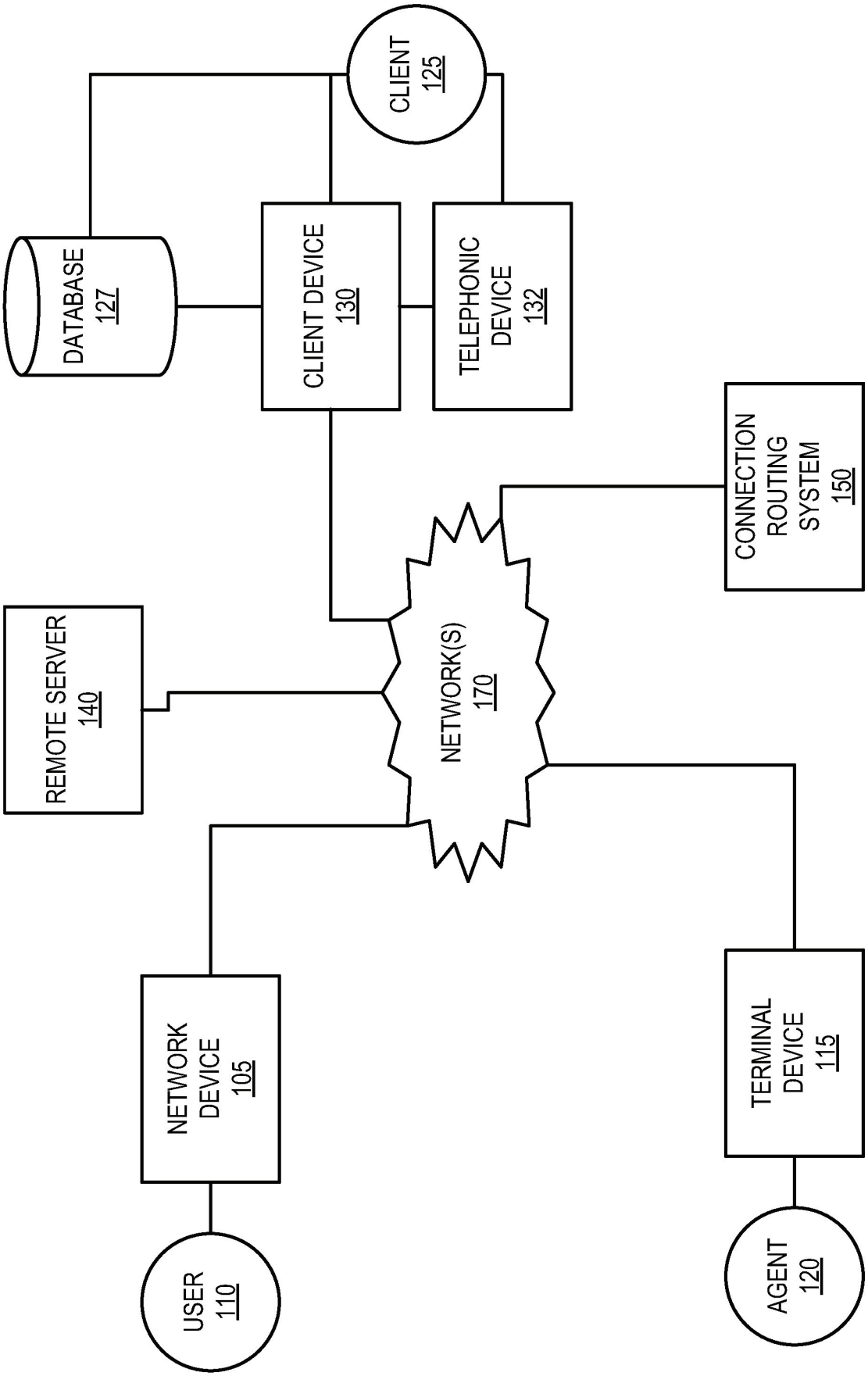
CLIENT
125
DATABASE
127
CLIENT DEVICE
130
TELEPHONIC
DEVICE
132
CONNECTION
ROUTING
SYSTEM
150
REMOTE SERVER
140
NETWORK(S)
170
NETWORK
DEVICE
105
TERMINAL
DEVICE
115
USER
110
AGENT
120

FIG. 1

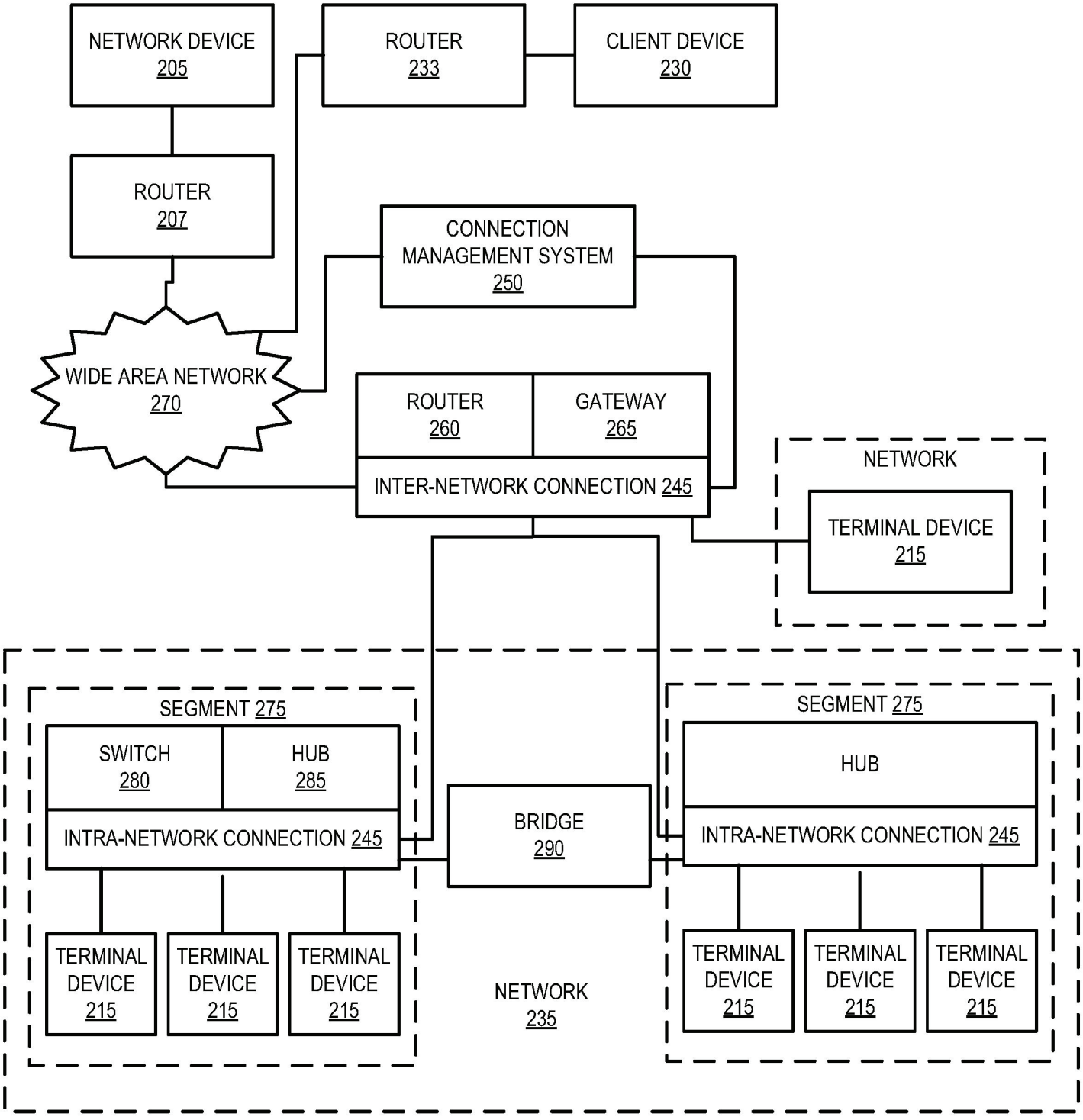
NETWORK DEVICE
205
ROUTER
233
CLIENT DEVICE
230
ROUTER
207
CONNECTION MANAGEMENT SYSTEM
250
WIDE AREA NETWORK
270
ROUTER
260
GATEWAY
265
INTER-NETWORK CONNECTION 245
NETWORK
TERMINAL DEVICE
215
SEGMENT 275
SWITCH
280
HUB
285
INTRA-NETWORK CONNECTION 245
BRIDGE
290
SEGMENT 275
HUB
INTRA-NETWORK CONNECTION 245
TERMINAL DEVICE
215
TERMINAL DEVICE
215
TERMINAL DEVICE
215
NETWORK
235
TERMINAL DEVICE
215
TERMINAL DEVICE
215
TERMINAL DEVICE
215

FIG. 2

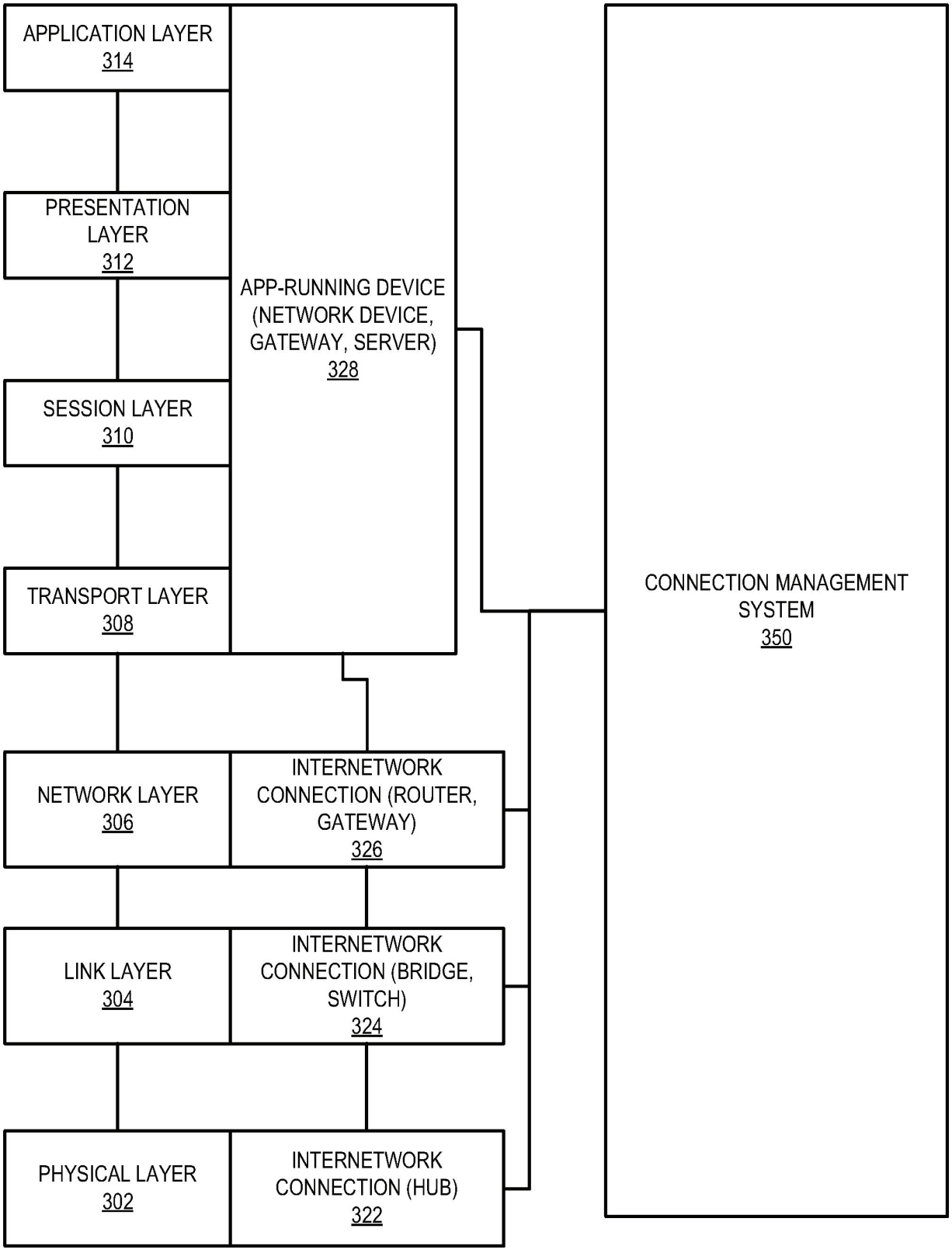
APPLICATION LAYER
314
PRESENTATION LAYER
312
SESSION LAYER
310
TRANSPORT LAYER
308
NETWORK LAYER
306
LINK LAYER
304
PHYSICAL LAYER
302
APP-RUNNING DEVICE (NETWORK DEVICE, GATEWAY, SERVER)
328
INTERNETWORK CONNECTION (ROUTER, GATEWAY)
326
INTERNETWORK CONNECTION (BRIDGE, SWITCH)
324
INTERNETWORK CONNECTION (HUB)
322
CONNECTION MANAGEMENT SYSTEM
350

FIG. 3

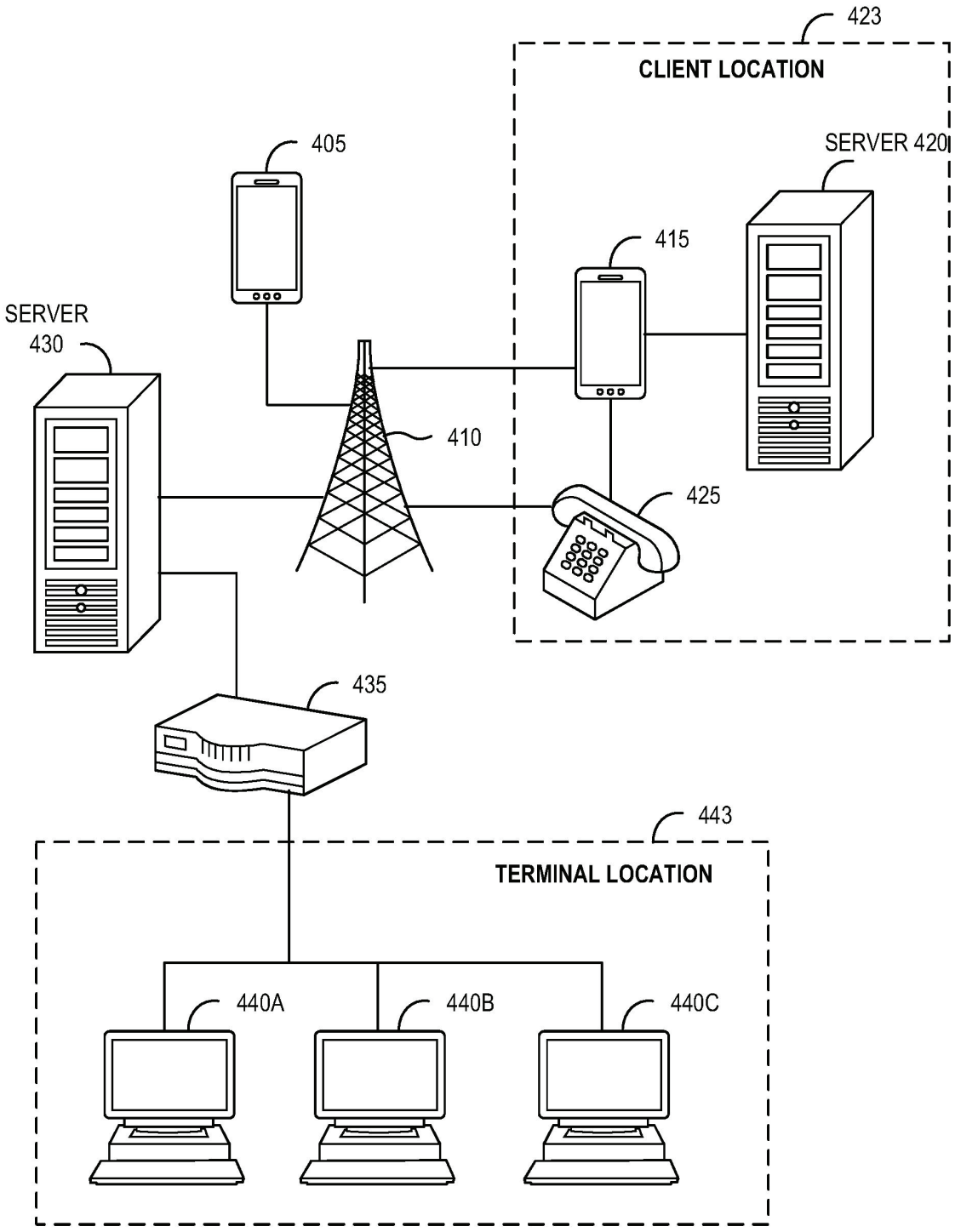
423
CLIENT LOCATION
405
SERVER 420
415
SERVER
430
410
425
435
443
TERMINAL LOCATION
440A
440B
440C

FIG. 4

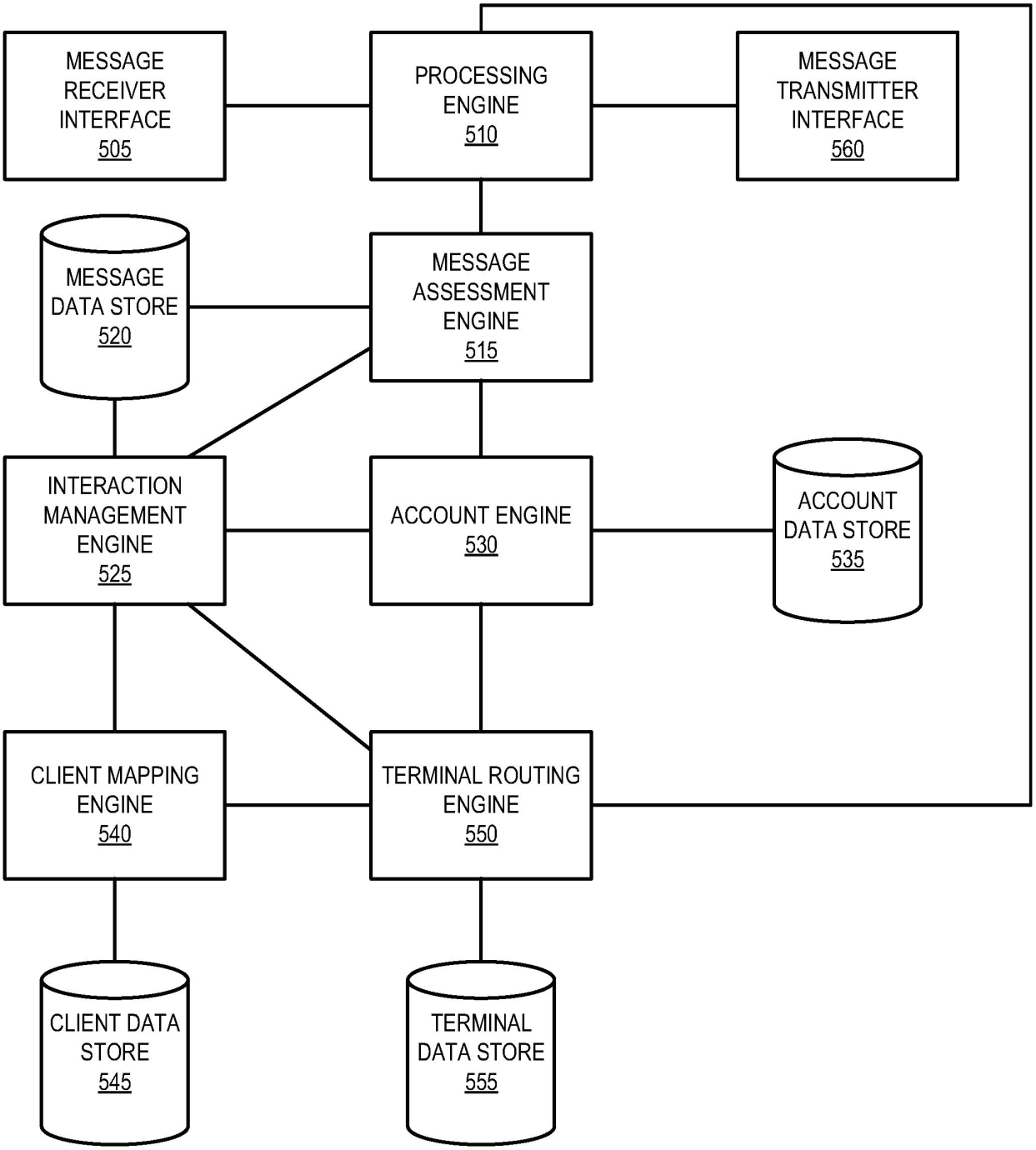
MESSAGE RECEIVER INTERFACE 505
PROCESSING ENGINE 510
MESSAGE TRANSMITTER INTERFACE 560
MESSAGE DATA STORE 520
MESSAGE ASSESSMENT ENGINE 515
INTERACTION MANAGEMENT ENGINE 525
ACCOUNT ENGINE 530
ACCOUNT DATA STORE 535
CLIENT MAPPING ENGINE 540
TERMINAL ROUTING ENGINE 550
CLIENT DATA STORE 545
TERMINAL DATA STORE 555

FIG. 5

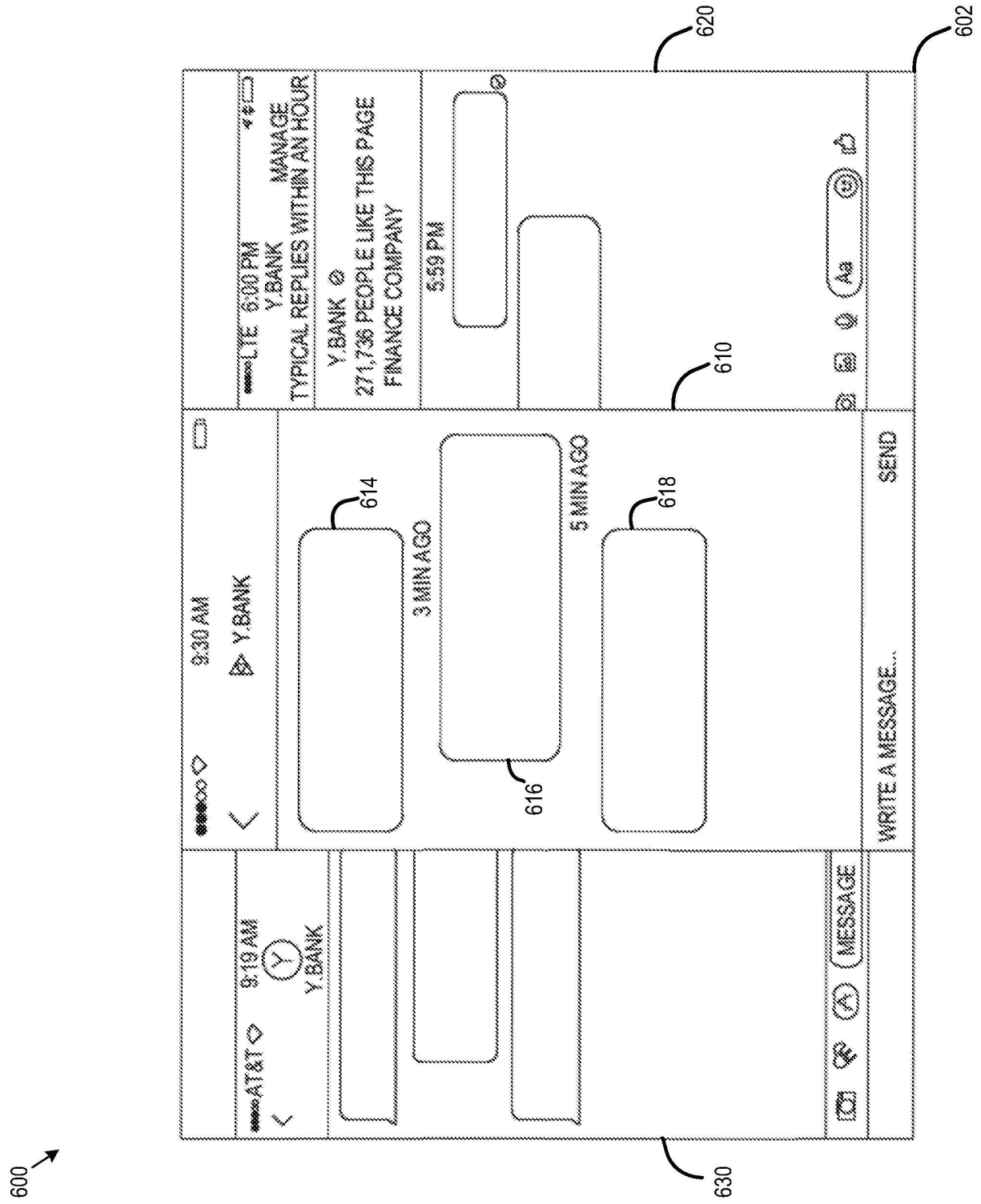
600
AT&T
8:19 AM
Y.BANK
MESSAGE
630
9:30 AM
Y.BANK
614
3 MIN AGO
616
5 MIN AGO
618
WRITE A MESSAGE...
SEND
610
LTE 6:00 PM
Y.BANK
MANAGE
TYPICAL REPLIES WITHIN AN HOUR
Y.BANK
271,736 PEOPLE LIKE THIS PAGE
FINANCE COMPANY
5:59 PM
Aa
620
602

FIG. 6

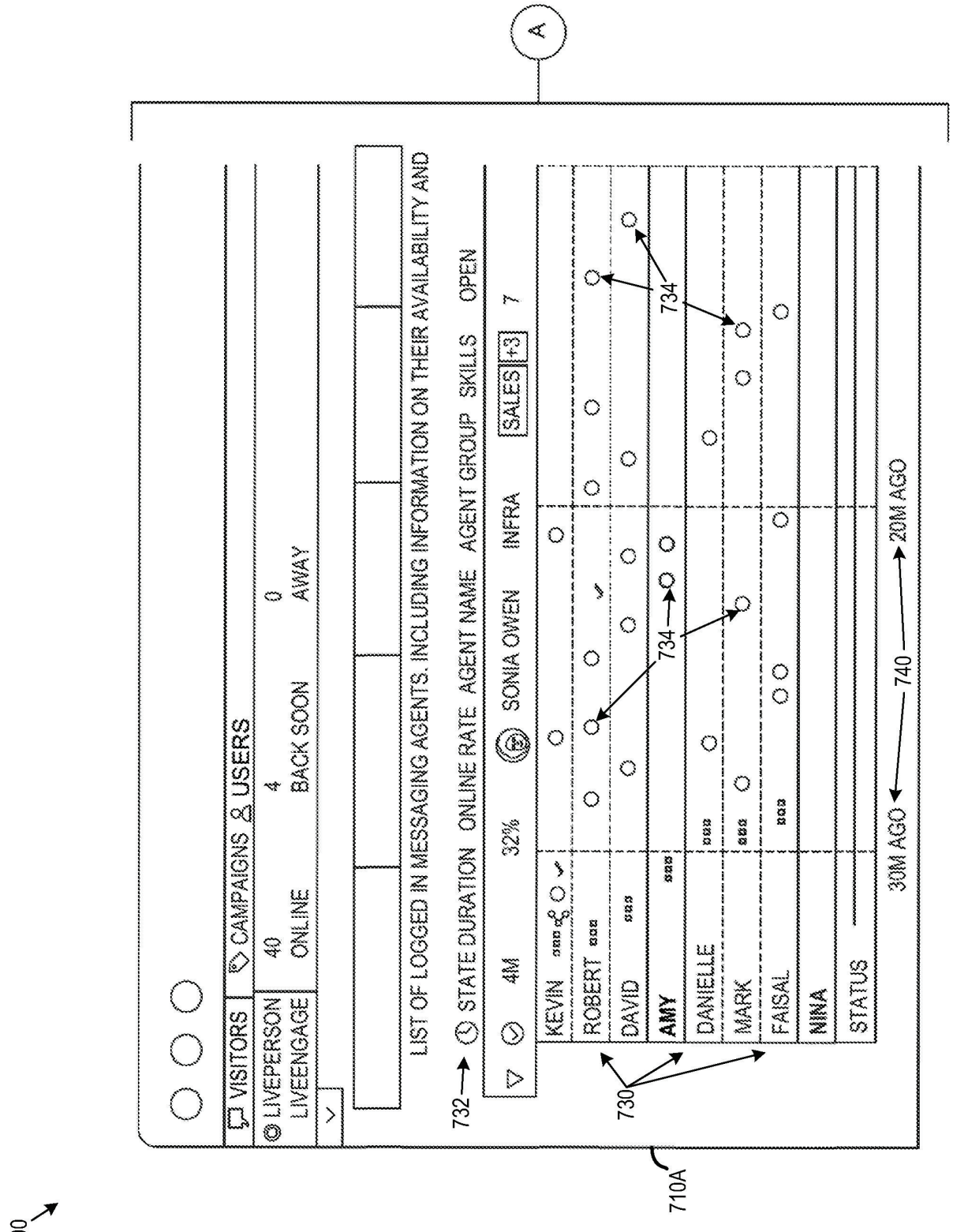
700
710A
VISITORS
CAMPAIGNS & USERS
LIVEPERSON
LIVEENGAGE
40
ONLINE
4
BACK SOON
0
AWAY
LIST OF LOGGED IN MESSAGING AGENTS. INCLUDING INFORMATION ON THEIR AVAILABILITY AND
732
STATE DURATION
ONLINE RATE
AGENT NAME
AGENT GROUP
SKILLS
OPEN
4M
32%
SONIA OWEN
INFRA
SALES
+3
7
KEVIN
ROBERT
DAVID
AMY
DANIELLE
MARK
FAISAL
NINA
STATUS
730
734
734
740
30M AGO
20M AGO
A

FIG. 7A

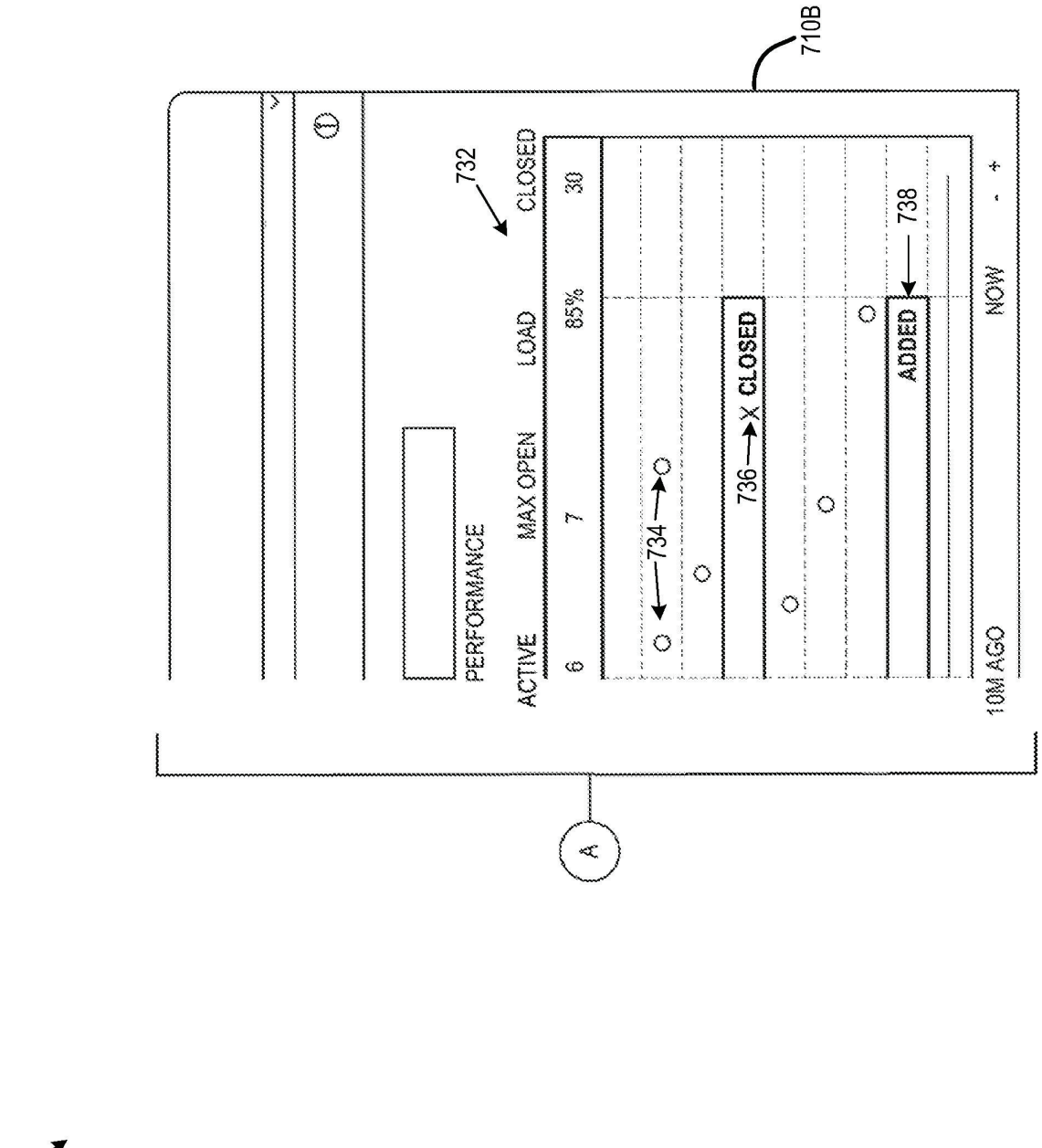
700
710B
732
PERFORMANCE
ACTIVE
MAX OPEN
LOAD
CLOSED
6
7
85%
30
734
736
X CLOSED
ADDED
738
10M AGO
NOW
A

FIG. 7B

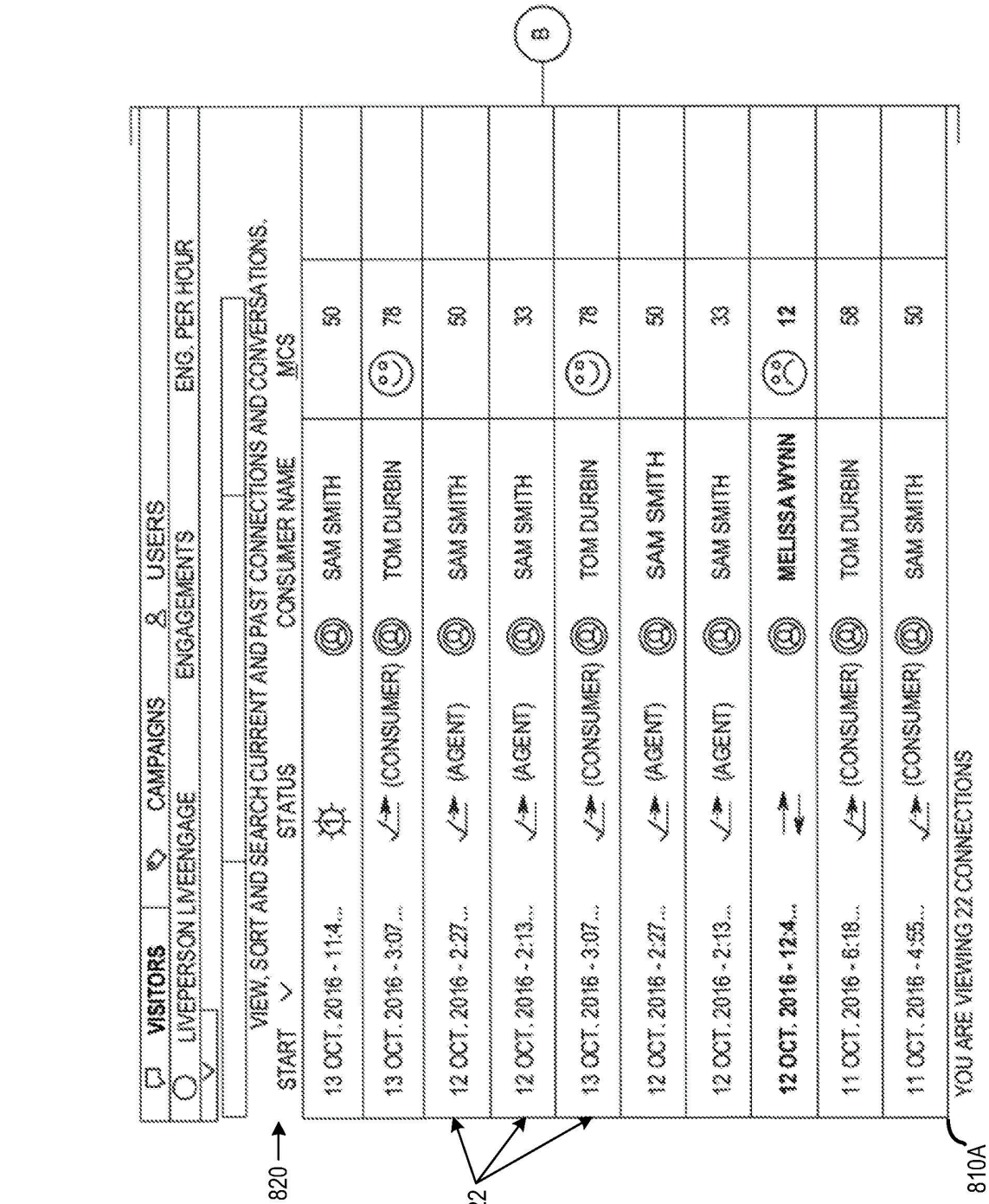
800
VISITORS
CAMPAIGNS
USERS
LIVEPERSON LIVEENGAGE
ENGAGEMENTS
ENG. PER HOUR
VIEW, SORT AND SEARCH CURRENT AND PAST CONNECTIONS AND CONVERSATIONS.
820
START
STATUS
CONSUMER NAME
MCS
13 OCT, 2016 - 11:4...
SAM SMITH
50
13 OCT, 2016 - 3:07...
(CONSUMER)
TOM DURBIN
78
12 OCT, 2016 - 2:27...
(AGENT)
SAM SMITH
50
12 OCT, 2016 - 2:13...
(AGENT)
SAM SMITH
33
13 OCT, 2016 - 3:07...
(CONSUMER)
TOM DURBIN
78
12 OCT, 2016 - 2:27...
(AGENT)
SAM SMITH
50
12 OCT, 2016 - 2:13...
(AGENT)
SAM SMITH
33
12 OCT, 2016 - 12:4...
MELISSA WYNN
12
11 OCT, 2016 - 8:18...
(CONSUMER)
TOM DURBIN
58
11 OCT, 2016 - 4:55...
(CONSUMER)
SAM SMITH
50
YOU ARE VIEWING 22 CONNECTIONS
810A
822
B

FIG. 8A


800
LPA-YEHBEIC
SKILL
AGENT NAME
AGENT GROUP
LAST MESSAGE TIME
DURATION
820
SALES
MEL
SALES CONSULTING
13 OCT, 2016 - 11:4...
126:14 HR
SALES
JAMES
SALES CONSULTING
13 OCT, 2016 - 3:08...
02:11 MIN
SUPPORT
MEL
SALES CONSULTING
12 OCT, 2016 - 6:07...
3:40 HR
SUPPORT
MEL
SALES CONSULTING
12 OCT, 2016 - 2:15...
10:49 MIN
SALES
JAMES
SALES CONSULTING
12 OCT, 2016 - 3:08...
02:11 MIN
SUPPORT
MEL
SALES CONSULTING
12 OCT, 2016 - 6:07...
3:40 HR
SUPPORT
MEL
SALES CONSULTING
12 OCT, 2016 - 2:15...
10:49 MIN
SALES
MEL
SALES CONSULTING
12 OCT, 2016 - 2:35...
148:08 HR
SALES
JAMES
SALES CONSULTING
11 OCT, 2016 - 6:19...
07:15 MIN
SUPPORT
MEL
SALES CONSULTING
11 OCT, 2016 - 5:00...
13:05 MIN
810B
B

FIG. 8B

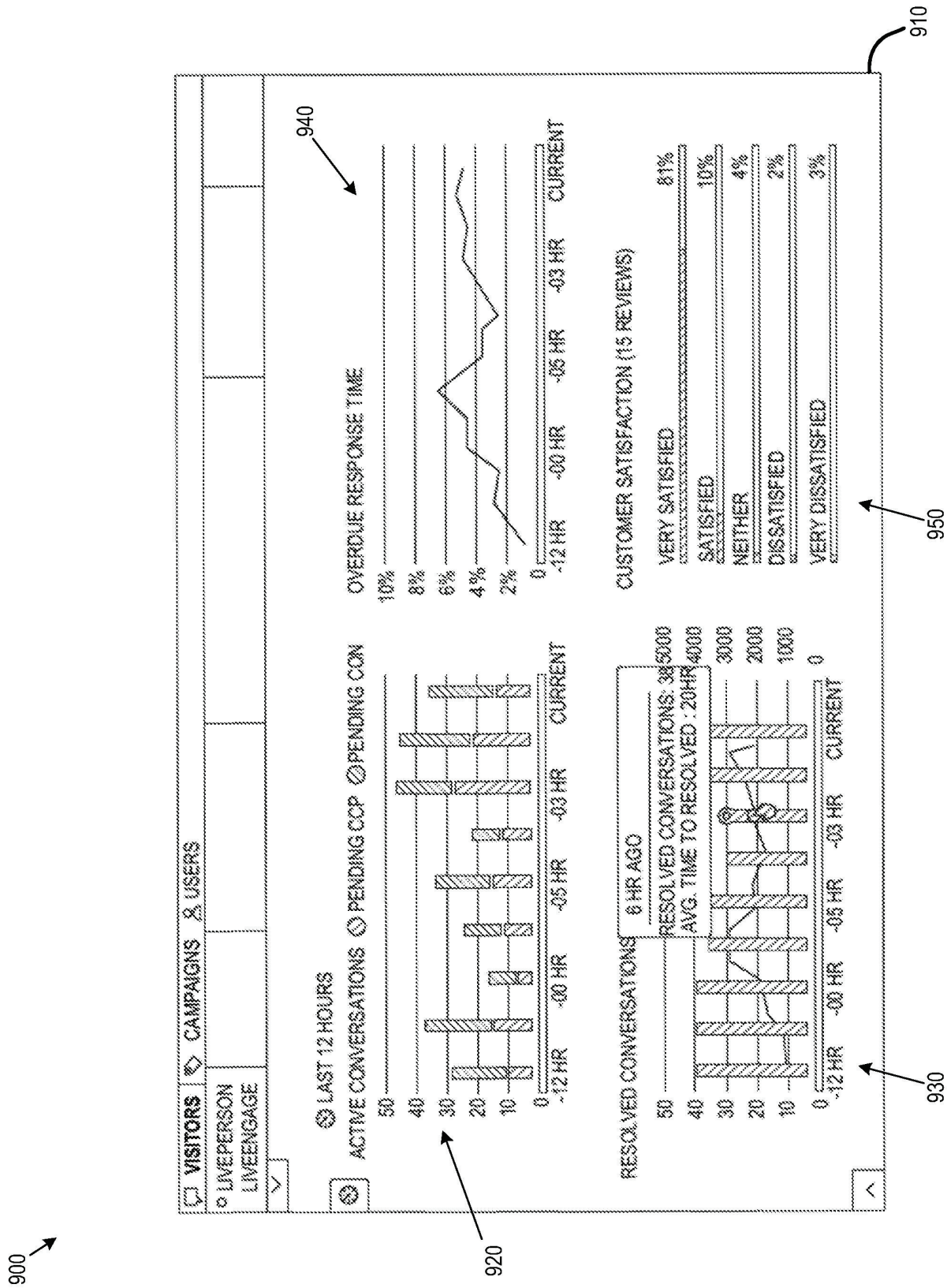
900
910
920
930
940
950
VISITORS
CAMPAIGNS
USERS
LIVEPERSON
LIVEENGAGE
LAST 12 HOURS
ACTIVE CONVERSATIONS
PENDING CCP
PENDING CON
OVERDUE RESPONSE TIME
10%
8%
6%
4%
2%
0
-12 HR
-09 HR
-06 HR
-03 HR
CURRENT
CUSTOMER SATISFACTION (15 REVIEWS)
VERY SATISFIED
81%
SATISFIED
10%
NEITHER
4%
DISSATISFIED
2%
VERY DISSATISFIED
3%
RESOLVED CONVERSATIONS
0 HR AGO
RESOLVED CONVERSATIONS: 38
AVG. TIME TO RESOLVED : 20HR
50
40
30
20
10
0
5000
4000
3000
2000
1000
-12 HR
-09 HR
-06 HR
-03 HR
CURRENT

FIG. 9

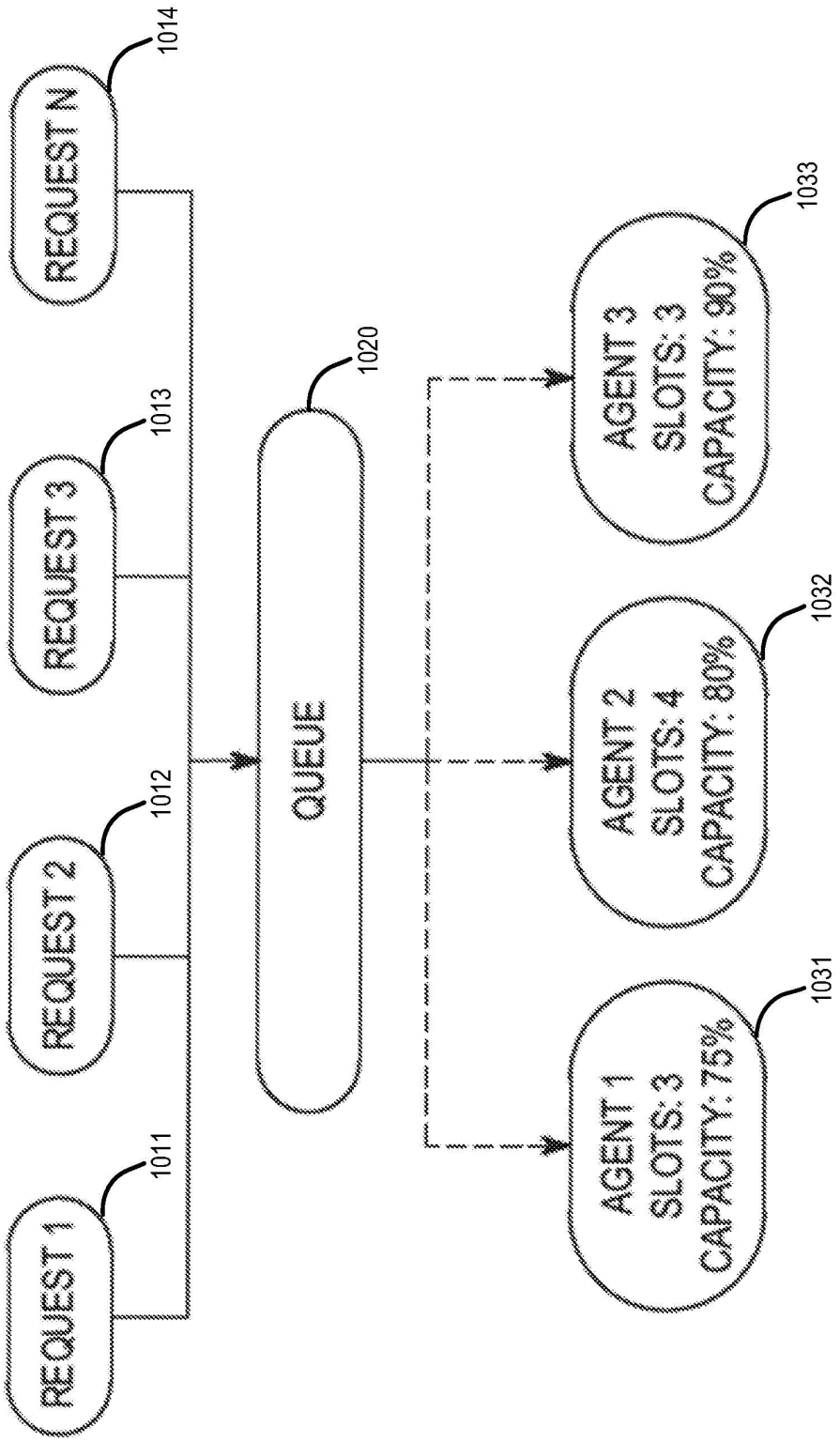
REQUEST 1
1011
REQUEST 2
1012
REQUEST 3
1013
REQUEST N
1014
QUEUE
1020
AGENT 1
SLOTS: 3
CAPACITY: 75%
1031
AGENT 2
SLOTS: 4
CAPACITY: 80%
1032
AGENT 3
SLOTS: 3
CAPACITY: 90%
1033

FIG. 10

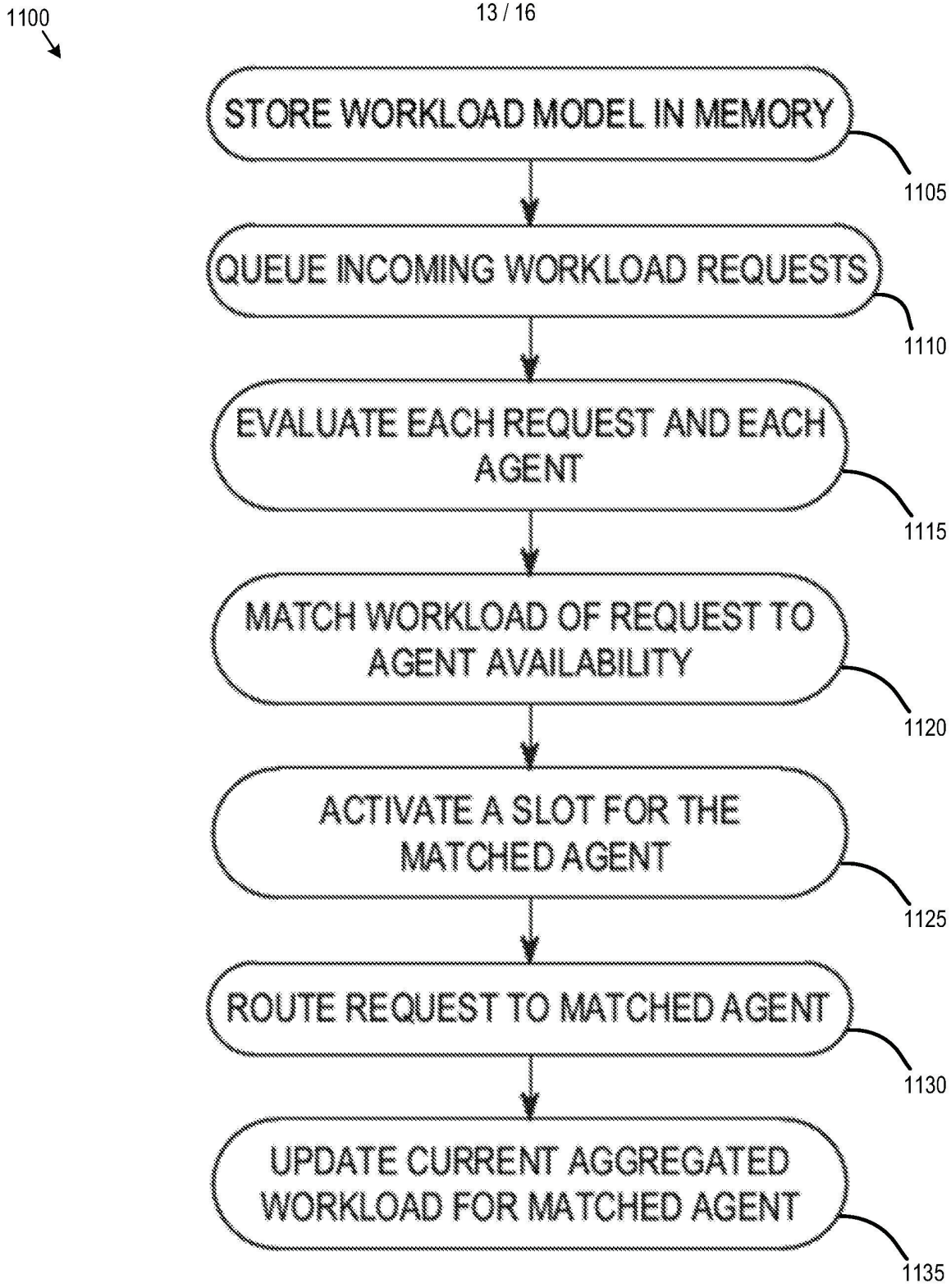
1100
STORE WORKLOAD MODEL IN MEMORY
1105
QUEUE INCOMING WORKLOAD REQUESTS
1110
EVALUATE EACH REQUEST AND EACH AGENT
1115
MATCH WORKLOAD OF REQUEST TO AGENT AVAILABILITY
1120
ACTIVATE A SLOT FOR THE MATCHED AGENT
1125
ROUTE REQUEST TO MATCHED AGENT
1130
UPDATE CURRENT AGGREGATED WORKLOAD FOR MATCHED AGENT
1135

FIG. 11

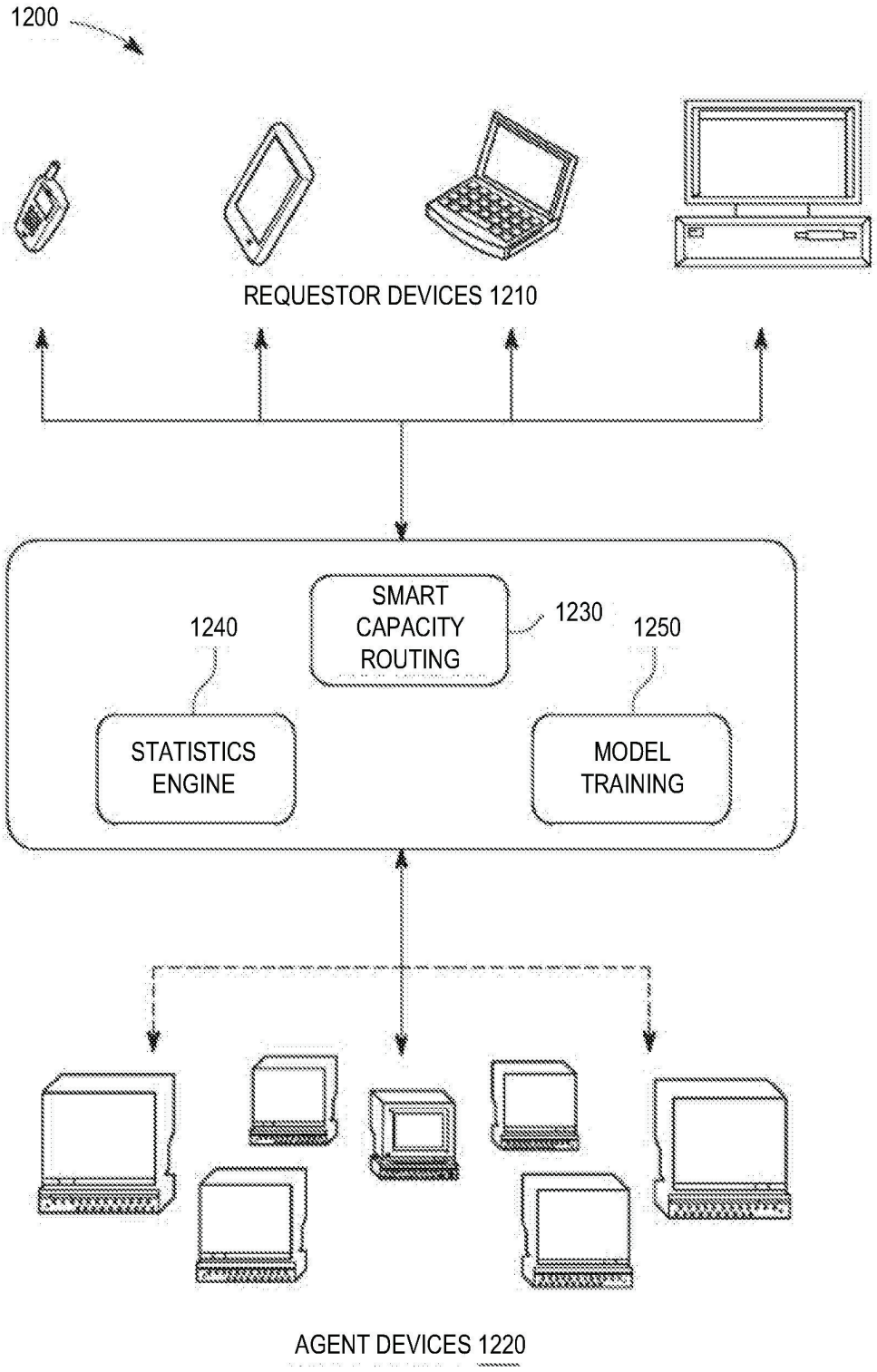
1200
REQUESTOR DEVICES 1210
SMART CAPACITY ROUTING
1230
1240
1250
STATISTICS ENGINE
MODEL TRAINING
AGENT DEVICES 1220

FIG. 12

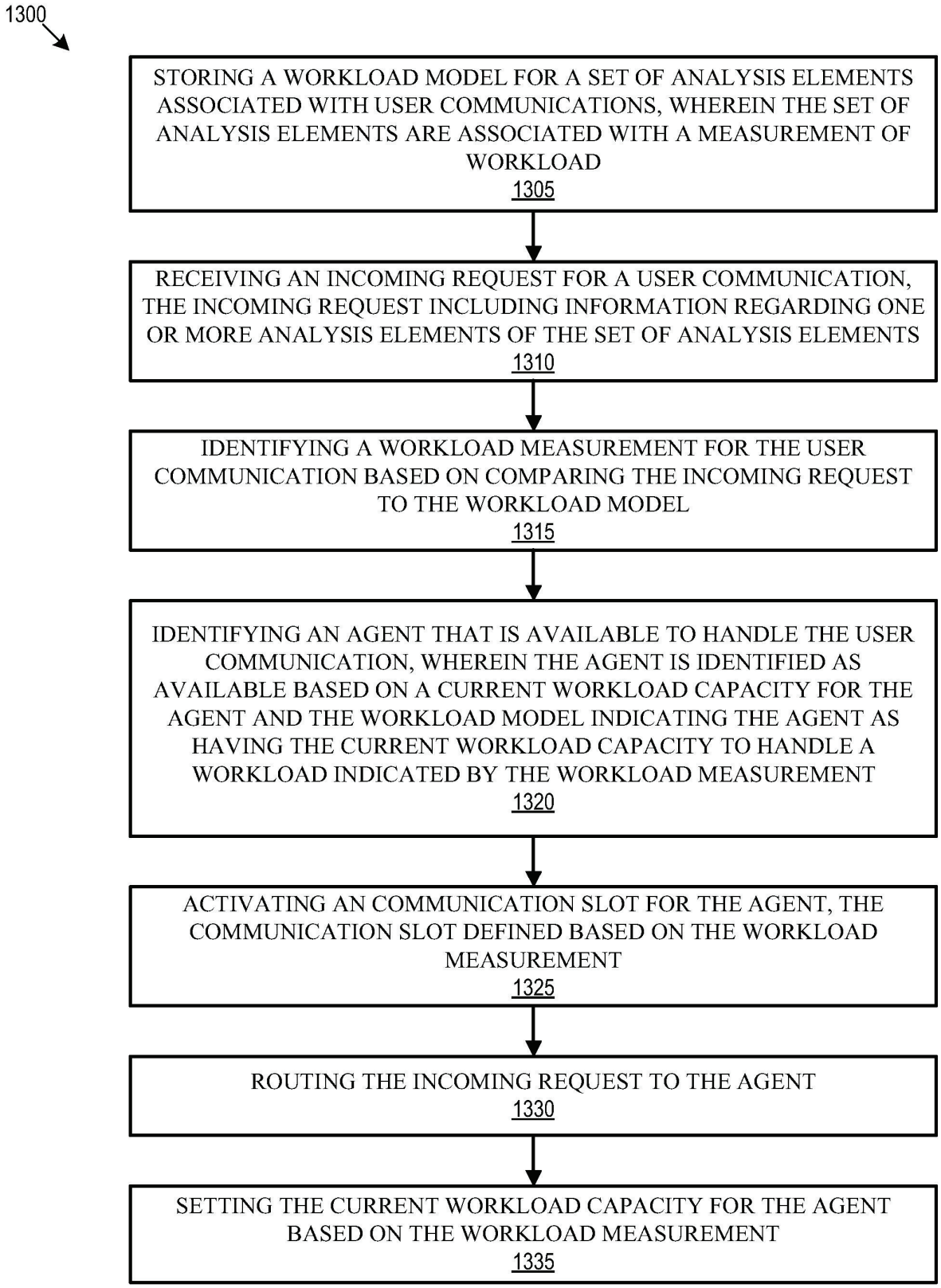
1300
STORING A WORKLOAD MODEL FOR A SET OF ANALYSIS ELEMENTS ASSOCIATED WITH USER COMMUNICATIONS, WHEREIN THE SET OF ANALYSIS ELEMENTS ARE ASSOCIATED WITH A MEASUREMENT OF WORKLOAD
1305
RECEIVING AN INCOMING REQUEST FOR A USER COMMUNICATION, THE INCOMING REQUEST INCLUDING INFORMATION REGARDING ONE OR MORE ANALYSIS ELEMENTS OF THE SET OF ANALYSIS ELEMENTS
1310
IDENTIFYING A WORKLOAD MEASUREMENT FOR THE USER COMMUNICATION BASED ON COMPARING THE INCOMING REQUEST TO THE WORKLOAD MODEL
1315
IDENTIFYING AN AGENT THAT IS AVAILABLE TO HANDLE THE USER COMMUNICATION, WHEREIN THE AGENT IS IDENTIFIED AS AVAILABLE BASED ON A CURRENT WORKLOAD CAPACITY FOR THE AGENT AND THE WORKLOAD MODEL INDICATING THE AGENT AS HAVING THE CURRENT WORKLOAD CAPACITY TO HANDLE A WORKLOAD INDICATED BY THE WORKLOAD MEASUREMENT
1320
ACTIVATING AN COMMUNICATION SLOT FOR THE AGENT, THE COMMUNICATION SLOT DEFINED BASED ON THE WORKLOAD MEASUREMENT
1325
ROUTING THE INCOMING REQUEST TO THE AGENT
1330
SETTING THE CURRENT WORKLOAD CAPACITY FOR THE AGENT BASED ON THE WORKLOAD MEASUREMENT
1335

FIG. 13

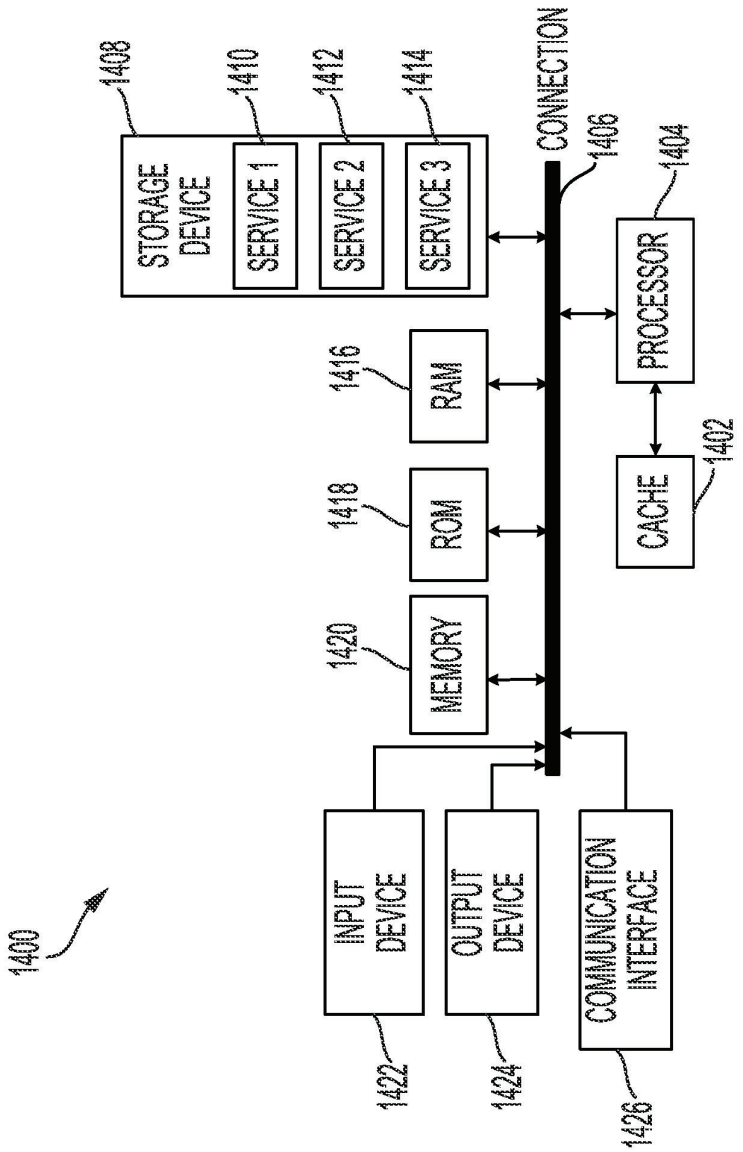
1400
INPUT DEVICE
1422
OUTPUT DEVICE
1424
COMMUNICATION INTERFACE
1426
MEMORY
1420
ROM
1418
RAM
1416
STORAGE DEVICE
1408
SERVICE 1
1410
SERVICE 2
1412
SERVICE 3
1414
CONNECTION
1406
PROCESSOR
1404
CACHE
1402

FIG. 14