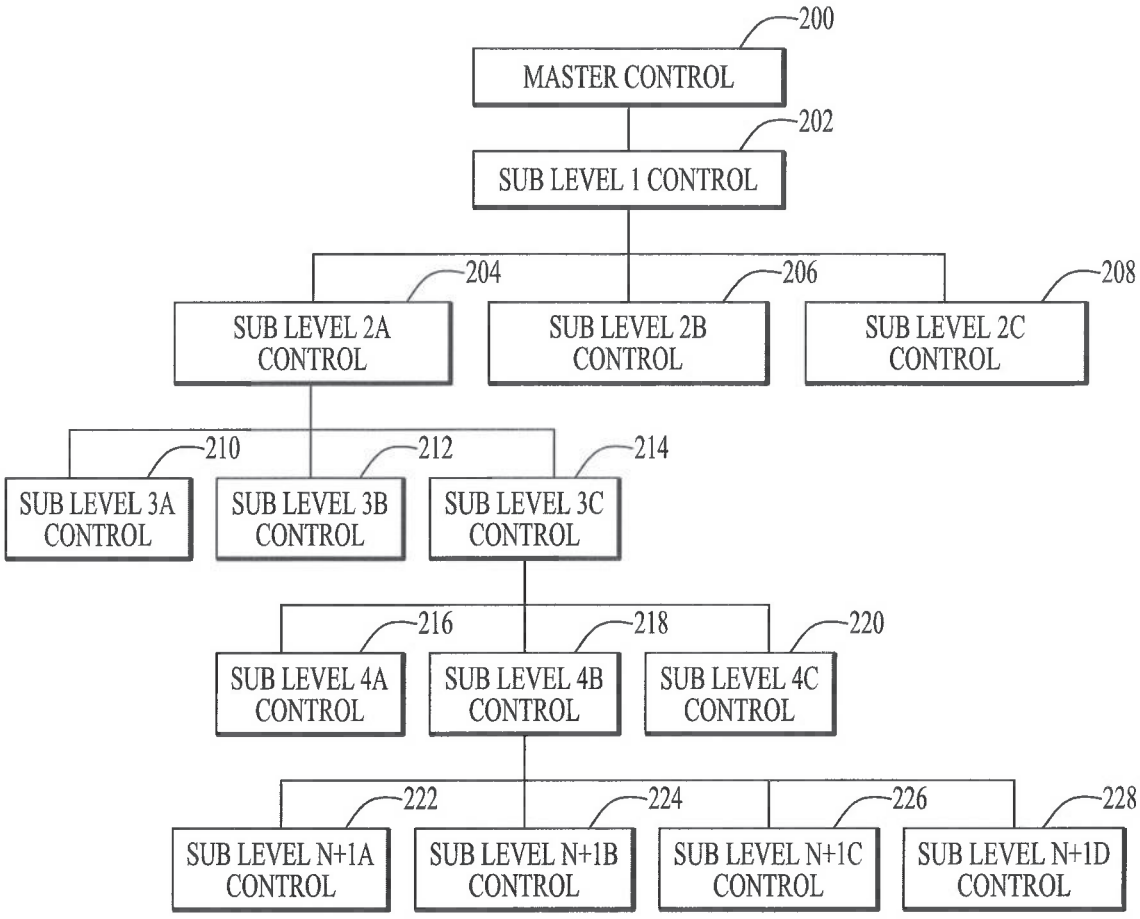

200
MASTER CONTROL
202
SUB LEVEL 1 CONTROL
204
206
208
SUB LEVEL 2A CONTROL
SUB LEVEL 2B CONTROL
SUB LEVEL 2C CONTROL
210
212
214
SUB LEVEL 3A CONTROL
SUB LEVEL 3B CONTROL
SUB LEVEL 3C CONTROL
216
218
220
SUB LEVEL 4A CONTROL
SUB LEVEL 4B CONTROL
SUB LEVEL 4C CONTROL
222
224
226
228
SUB LEVEL N+1A CONTROL
SUB LEVEL N+1B CONTROL
SUB LEVEL N+1C CONTROL
SUB LEVEL N+1D CONTROL

FIG. 1

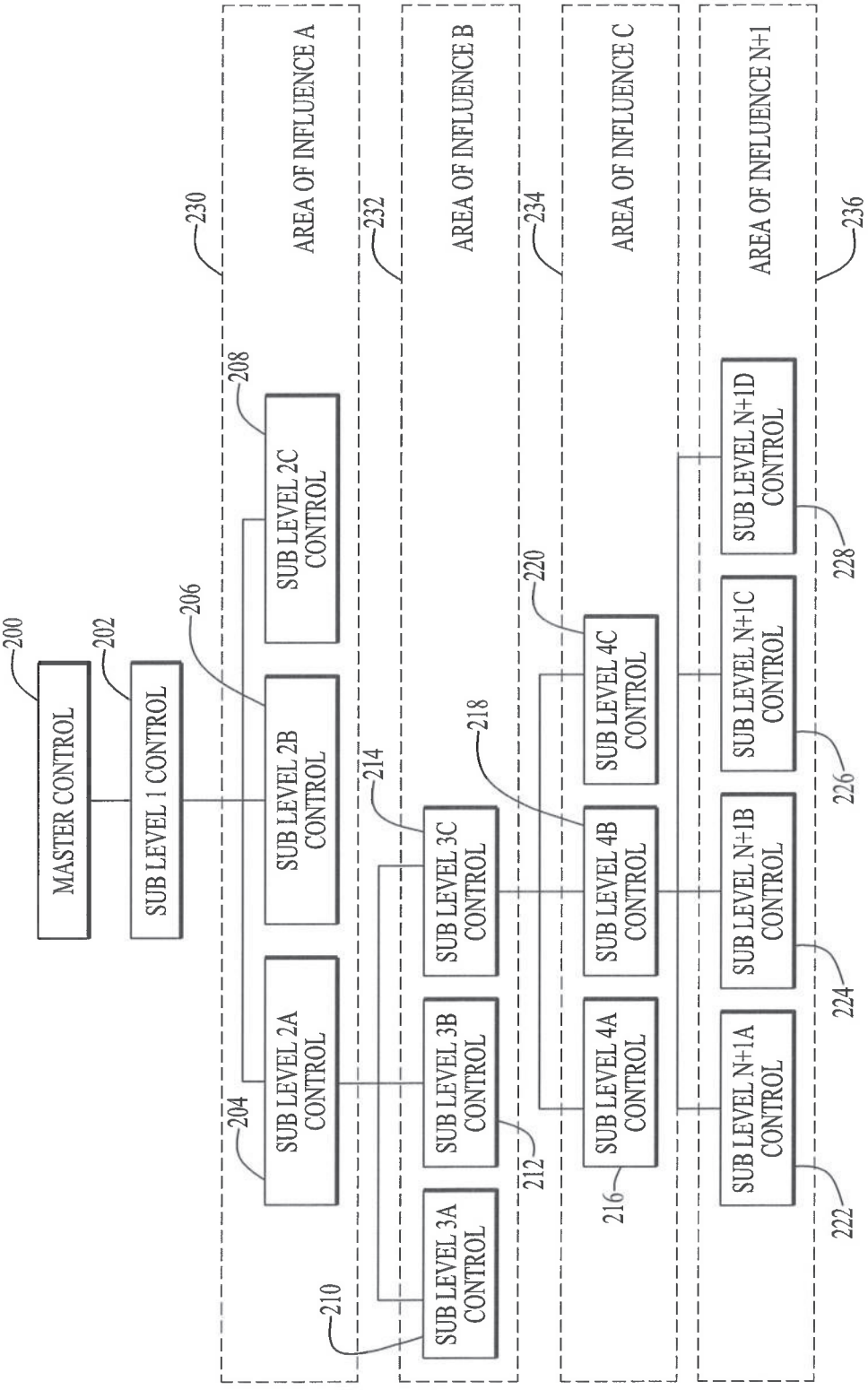

MASTER CONTROL
200
SUB LEVEL 1 CONTROL
202
206
SUB LEVEL 2A CONTROL
204
SUB LEVEL 2B CONTROL
SUB LEVEL 2C CONTROL
208
230
AREA OF INFLUENCE A
SUB LEVEL 3A CONTROL
210
SUB LEVEL 3B CONTROL
212
SUB LEVEL 3C CONTROL
214
218
232
AREA OF INFLUENCE B
SUB LEVEL 4A CONTROL
216
SUB LEVEL 4B CONTROL
SUB LEVEL 4C CONTROL
220
234
AREA OF INFLUENCE C
SUB LEVEL N+1A CONTROL
222
SUB LEVEL N+1B CONTROL
224
SUB LEVEL N+1C CONTROL
226
SUB LEVEL N+1D CONTROL
228
236
AREA OF INFLUENCE N+1

FIG. 2

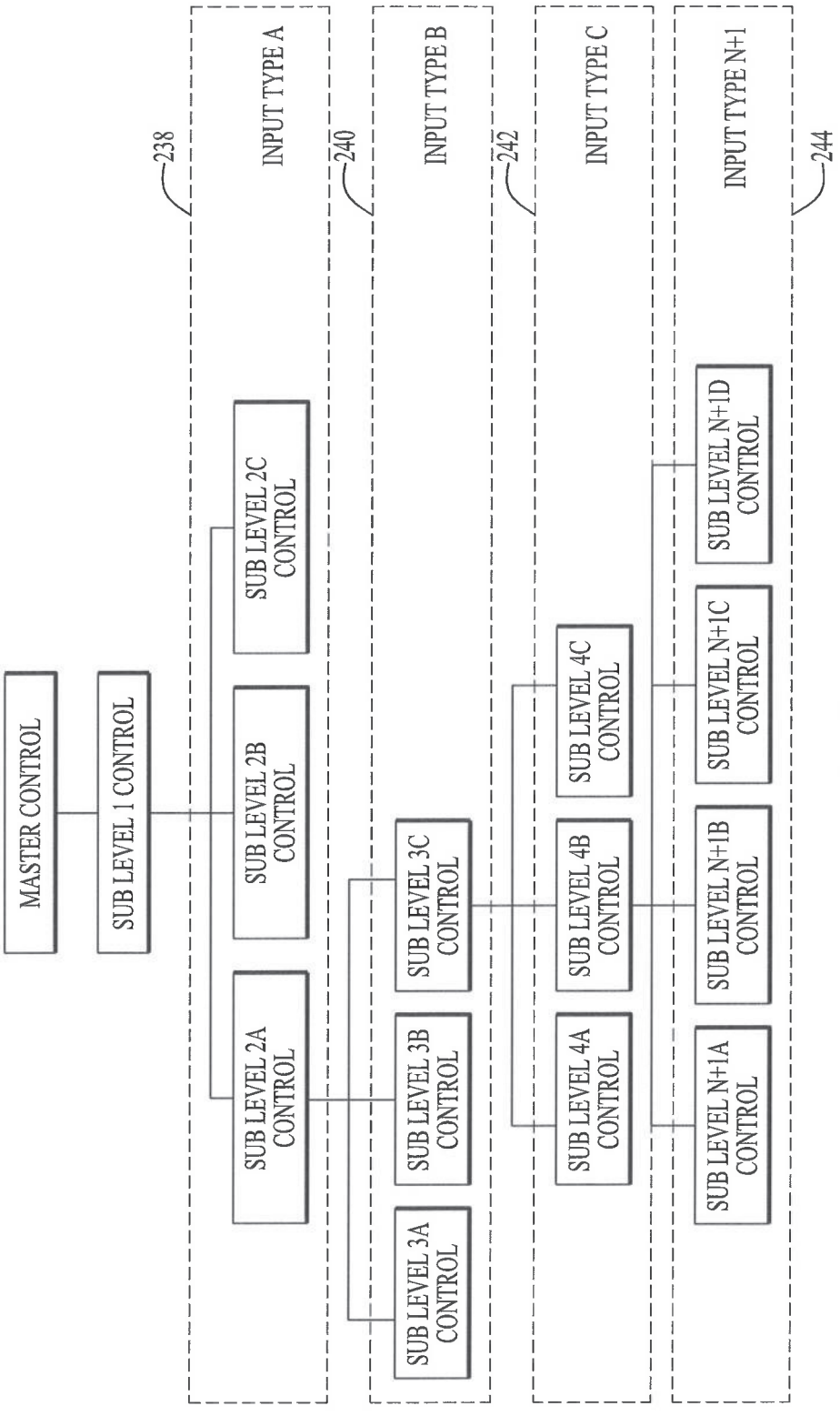

MASTER CONTROL
SUB LEVEL 1 CONTROL
SUB LEVEL 2A CONTROL
SUB LEVEL 2B CONTROL
SUB LEVEL 2C CONTROL
SUB LEVEL 3A CONTROL
SUB LEVEL 3B CONTROL
SUB LEVEL 3C CONTROL
SUB LEVEL 4A CONTROL
SUB LEVEL 4B CONTROL
SUB LEVEL 4C CONTROL
SUB LEVEL N+1A CONTROL
SUB LEVEL N+1B CONTROL
SUB LEVEL N+1C CONTROL
SUB LEVEL N+1D CONTROL
238
INPUT TYPE A
240
INPUT TYPE B
242
INPUT TYPE C
244
INPUT TYPE N+1

FIG. 3

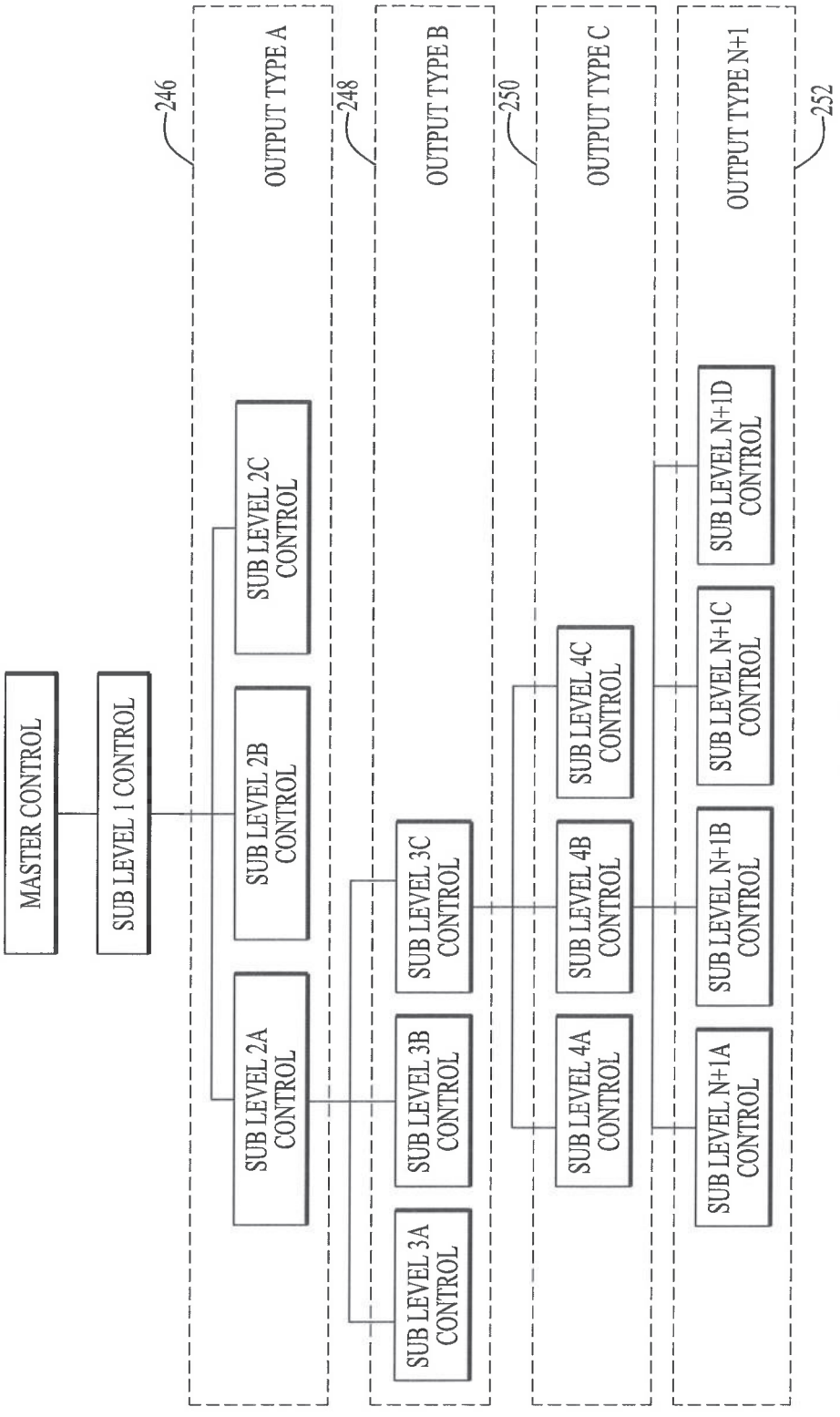

MASTER CONTROL
SUB LEVEL 1 CONTROL
246
OUTPUT TYPE A
SUB LEVEL 2A CONTROL
SUB LEVEL 2B CONTROL
SUB LEVEL 2C CONTROL
248
OUTPUT TYPE B
SUB LEVEL 3A CONTROL
SUB LEVEL 3B CONTROL
SUB LEVEL 3C CONTROL
250
OUTPUT TYPE C
SUB LEVEL 4A CONTROL
SUB LEVEL 4B CONTROL
SUB LEVEL 4C CONTROL
252
OUTPUT TYPE N+1
SUB LEVEL N+1A CONTROL
SUB LEVEL N+1B CONTROL
SUB LEVEL N+1C CONTROL
SUB LEVEL N+1D CONTROL

FIG. 4

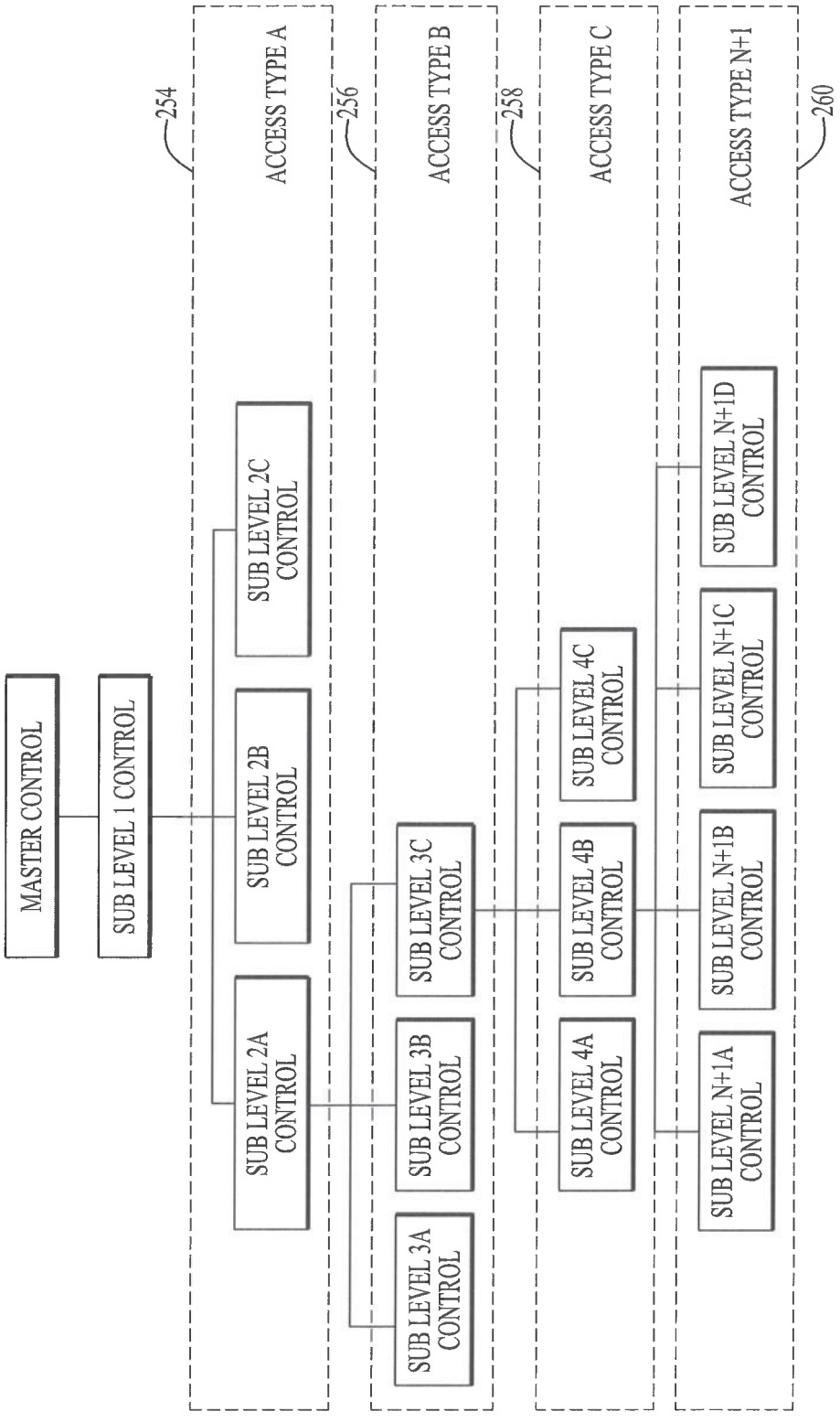

MASTER CONTROL
SUB LEVEL 1 CONTROL
SUB LEVEL 2A CONTROL
SUB LEVEL 2B CONTROL
SUB LEVEL 2C CONTROL
SUB LEVEL 3A CONTROL
SUB LEVEL 3B CONTROL
SUB LEVEL 3C CONTROL
SUB LEVEL 4A CONTROL
SUB LEVEL 4B CONTROL
SUB LEVEL 4C CONTROL
SUB LEVEL N+1A CONTROL
SUB LEVEL N+1B CONTROL
SUB LEVEL N+1C CONTROL
SUB LEVEL N+1D CONTROL
254
ACCESS TYPE A
256
ACCESS TYPE B
258
ACCESS TYPE C
260
ACCESS TYPE N+1

FIG. 5

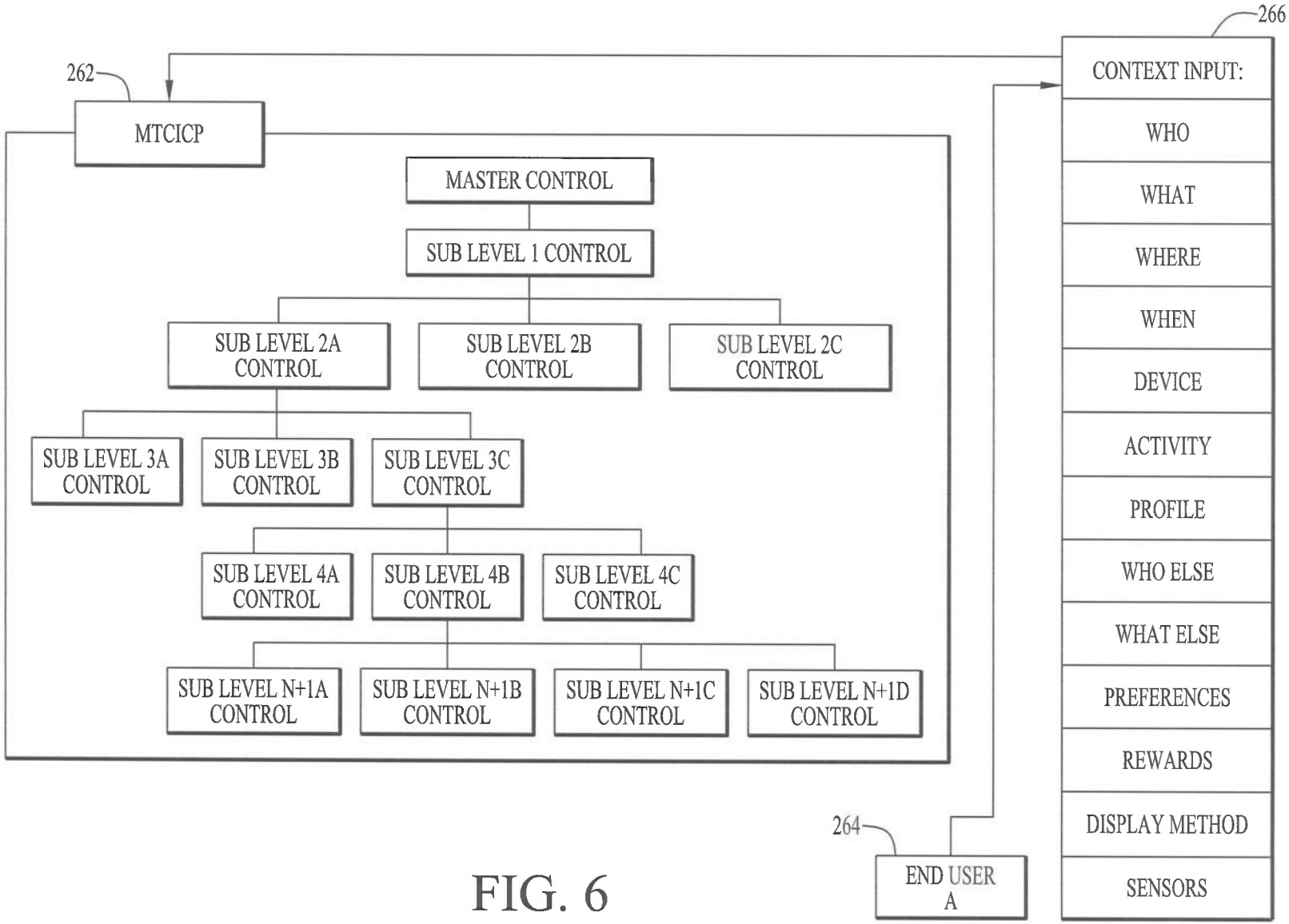

262
MTCICP
MASTER CONTROL
SUB LEVEL 1 CONTROL
SUB LEVEL 2A CONTROL
SUB LEVEL 2B CONTROL
SUB LEVEL 2C CONTROL
SUB LEVEL 3A CONTROL
SUB LEVEL 3B CONTROL
SUB LEVEL 3C CONTROL
SUB LEVEL 4A CONTROL
SUB LEVEL 4B CONTROL
SUB LEVEL 4C CONTROL
SUB LEVEL N+1A CONTROL
SUB LEVEL N+1B CONTROL
SUB LEVEL N+1C CONTROL
SUB LEVEL N+1D CONTROL
264
END USER A
266
CONTEXT INPUT:
WHO
WHAT
WHERE
WHEN
DEVICE
ACTIVITY
PROFILE
WHO ELSE
WHAT ELSE
PREFERENCES
REWARDS
DISPLAY METHOD
SENSORS

FIG. 6

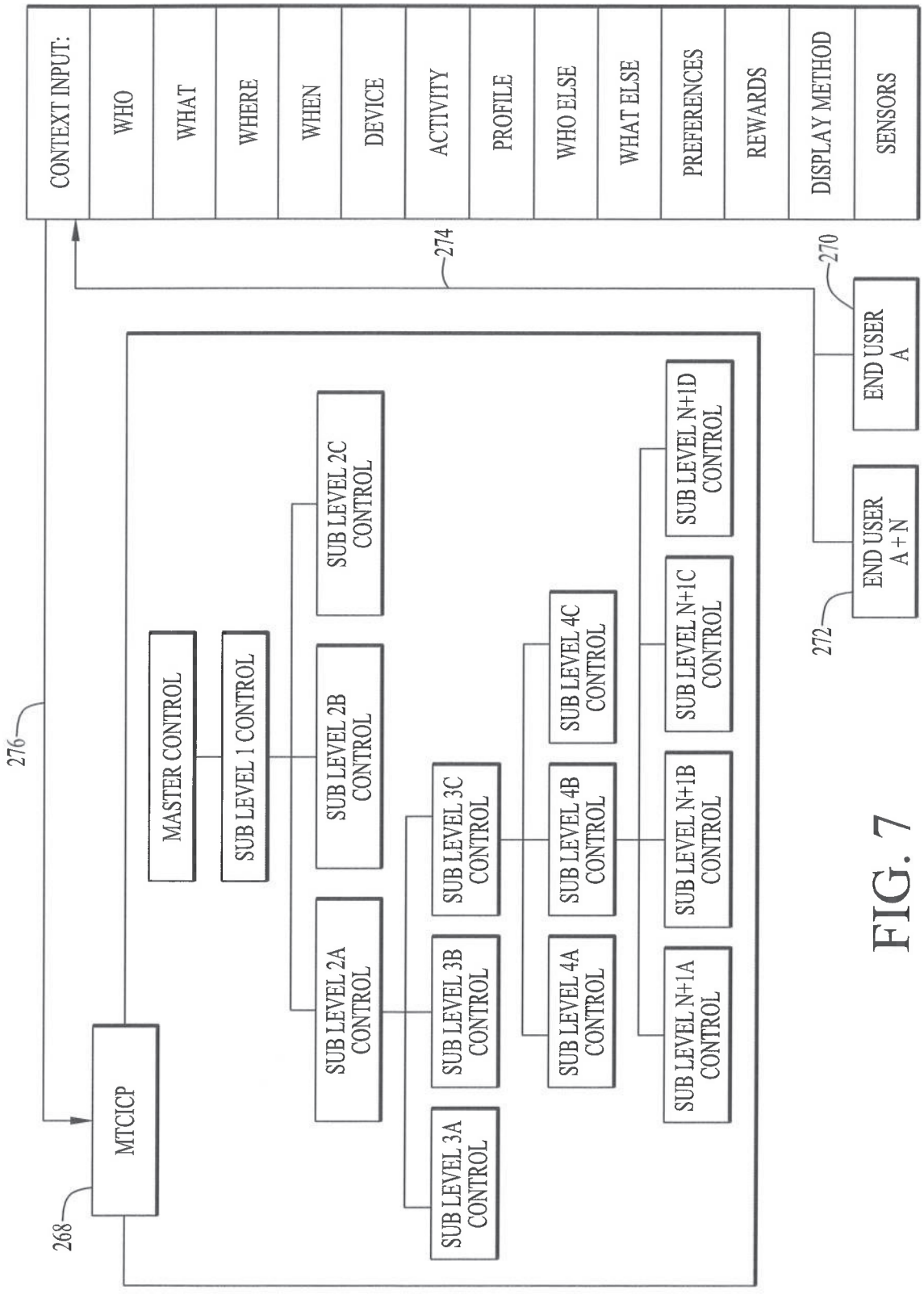

CONTEXT INPUT:
WHO
WHAT
WHERE
WHEN
DEVICE
ACTIVITY
PROFILE
WHO ELSE
WHAT ELSE
PREFERENCES
REWARDS
DISPLAY METHOD
SENSORS
274
270
END USER A
272
END USER A + N
276
MTCICP
268
MASTER CONTROL
SUB LEVEL 1 CONTROL
SUB LEVEL 2A CONTROL
SUB LEVEL 2B CONTROL
SUB LEVEL 2C CONTROL
SUB LEVEL 3A CONTROL
SUB LEVEL 3B CONTROL
SUB LEVEL 3C CONTROL
SUB LEVEL 4A CONTROL
SUB LEVEL 4B CONTROL
SUB LEVEL 4C CONTROL
SUB LEVEL N+1A CONTROL
SUB LEVEL N+1B CONTROL
SUB LEVEL N+1C CONTROL
SUB LEVEL N+1D CONTROL

FIG. 7

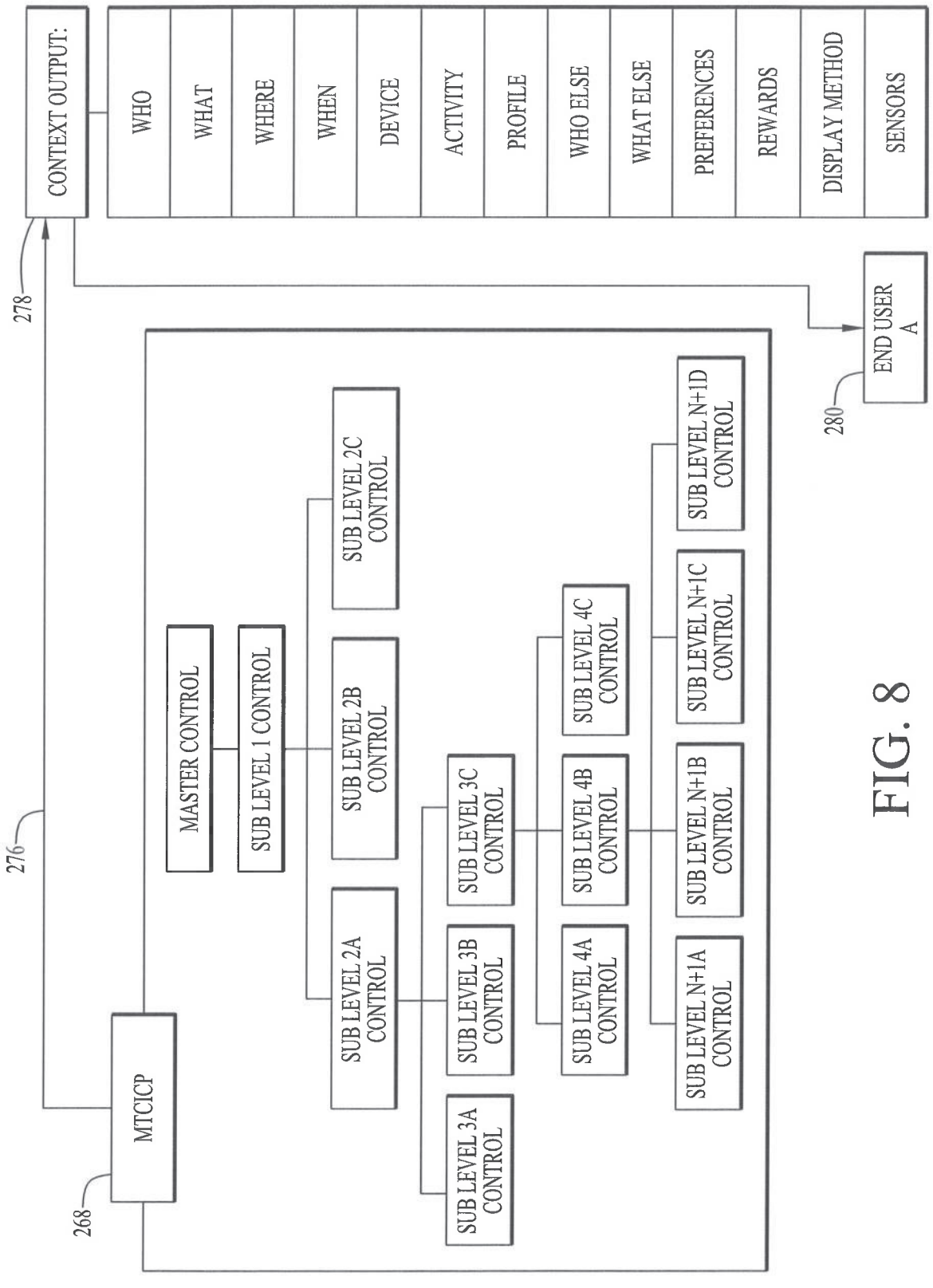

CONTEXT OUTPUT:
WHO
WHAT
WHERE
WHEN
DEVICE
ACTIVITY
PROFILE
WHO ELSE
WHAT ELSE
PREFERENCES
REWARDS
DISPLAY METHOD
SENSORS
278
END USER A
280
276
MTCICP
268
MASTER CONTROL
SUB LEVEL 1 CONTROL
SUB LEVEL 2A CONTROL
SUB LEVEL 2B CONTROL
SUB LEVEL 2C CONTROL
SUB LEVEL 3A CONTROL
SUB LEVEL 3B CONTROL
SUB LEVEL 3C CONTROL
SUB LEVEL 4A CONTROL
SUB LEVEL 4B CONTROL
SUB LEVEL 4C CONTROL
SUB LEVEL N+1A CONTROL
SUB LEVEL N+1B CONTROL
SUB LEVEL N+1C CONTROL
SUB LEVEL N+1D CONTROL

FIG. 8

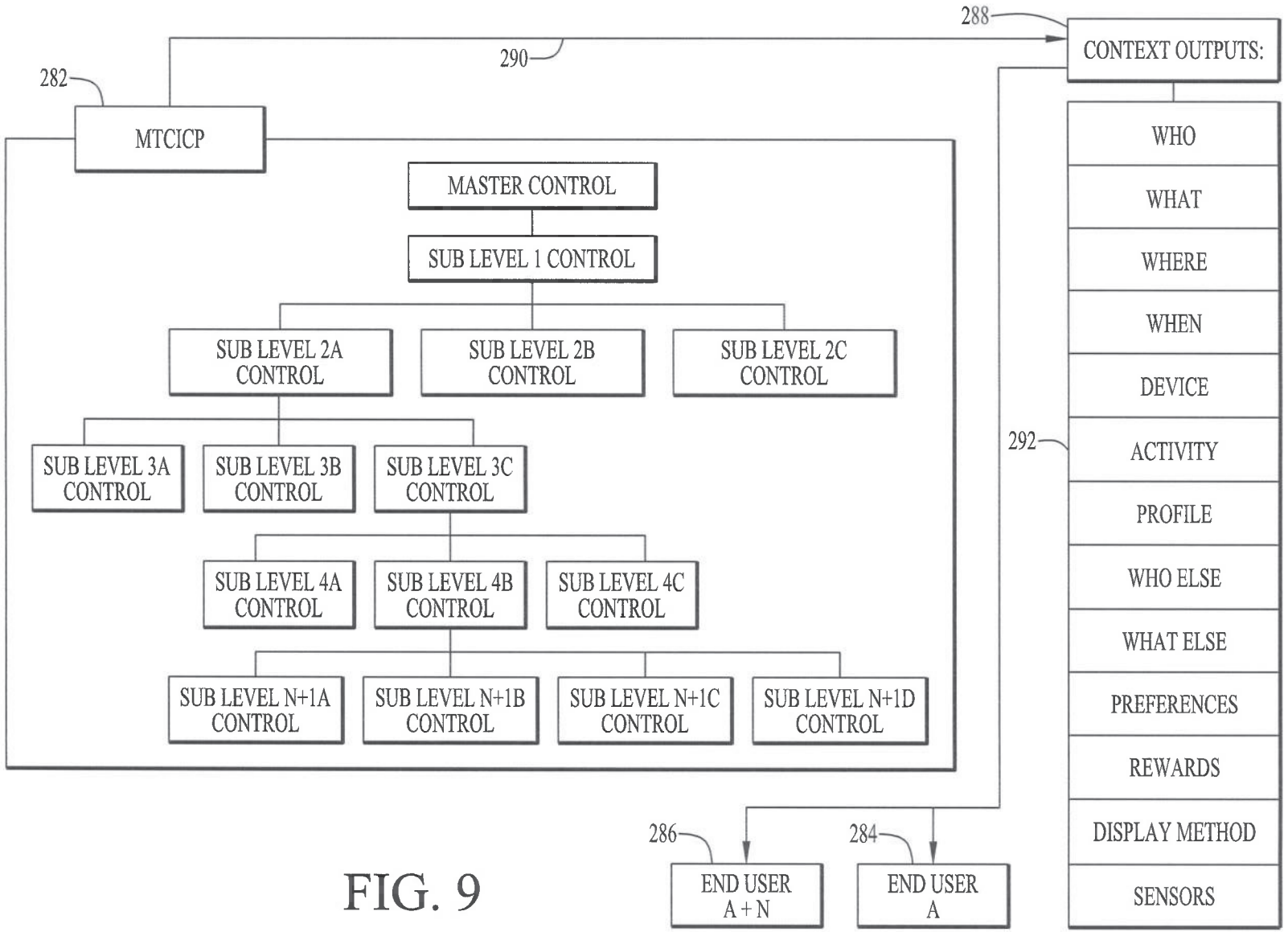

288
CONTEXT OUTPUTS:
290
282
MTCICP
MASTER CONTROL
SUB LEVEL 1 CONTROL
SUB LEVEL 2A CONTROL
SUB LEVEL 2B CONTROL
SUB LEVEL 2C CONTROL
SUB LEVEL 3A CONTROL
SUB LEVEL 3B CONTROL
SUB LEVEL 3C CONTROL
SUB LEVEL 4A CONTROL
SUB LEVEL 4B CONTROL
SUB LEVEL 4C CONTROL
SUB LEVEL N+1A CONTROL
SUB LEVEL N+1B CONTROL
SUB LEVEL N+1C CONTROL
SUB LEVEL N+1D CONTROL
WHO
WHAT
WHERE
WHEN
DEVICE
292
ACTIVITY
PROFILE
WHO ELSE
WHAT ELSE
PREFERENCES
REWARDS
DISPLAY METHOD
SENSORS
286
END USER A + N
284
END USER A

FIG. 9

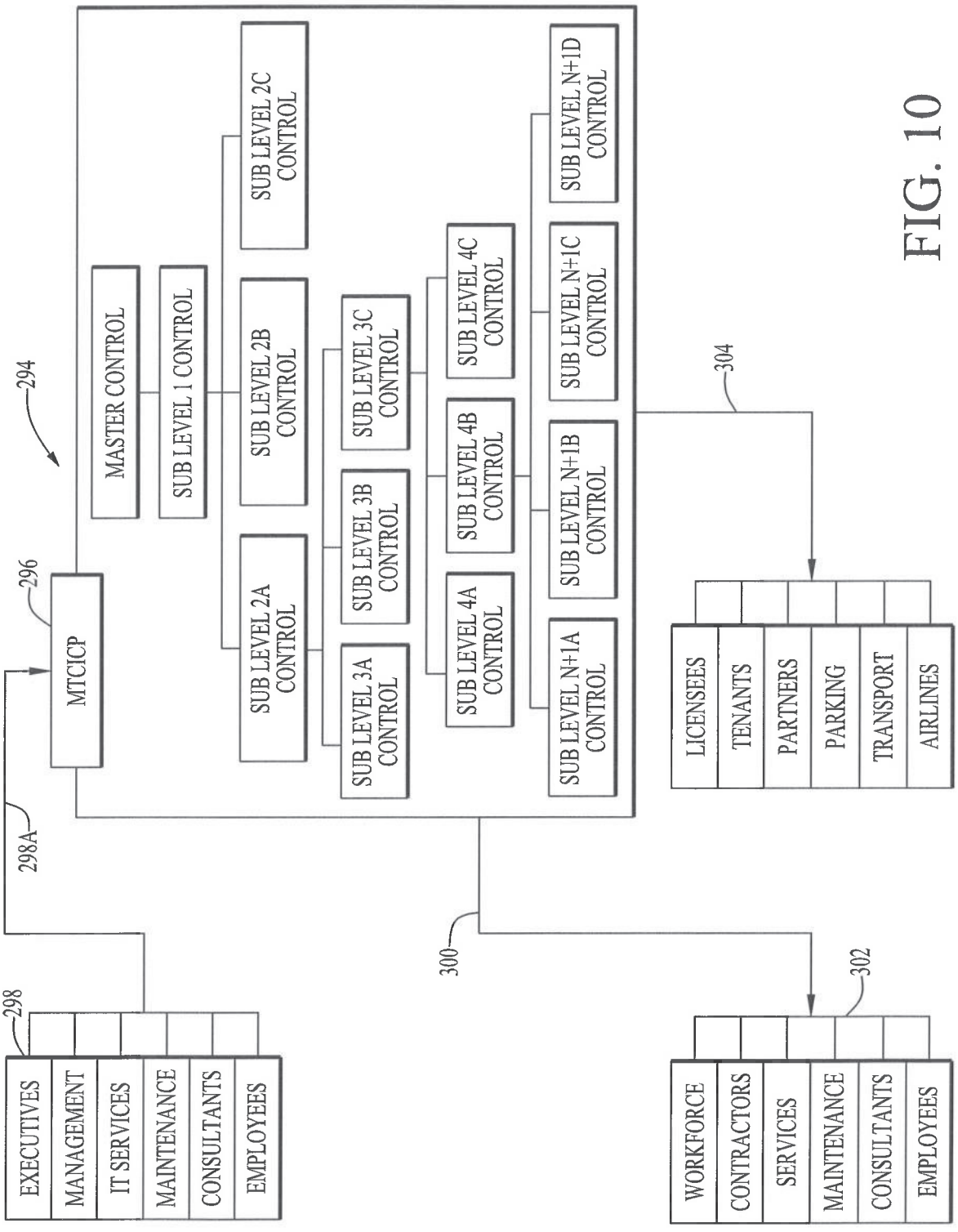

294
296
MTCICP
MASTER CONTROL
SUB LEVEL 1 CONTROL
SUB LEVEL 2A CONTROL
SUB LEVEL 2B CONTROL
SUB LEVEL 2C CONTROL
SUB LEVEL 3A CONTROL
SUB LEVEL 3B CONTROL
SUB LEVEL 3C CONTROL
SUB LEVEL 4A CONTROL
SUB LEVEL 4B CONTROL
SUB LEVEL 4C CONTROL
SUB LEVEL N+1A CONTROL
SUB LEVEL N+1B CONTROL
SUB LEVEL N+1C CONTROL
SUB LEVEL N+1D CONTROL
298A
298
EXECUTIVES
MANAGEMENT
IT SERVICES
MAINTENANCE
CONSULTANTS
EMPLOYEES
300
302
WORKFORCE
CONTRACTORS
SERVICES
MAINTENANCE
CONSULTANTS
EMPLOYEES
304
LICENSEES
TENANTS
PARTNERS
PARKING
TRANSPORT
AIRLINES

FIG. 10

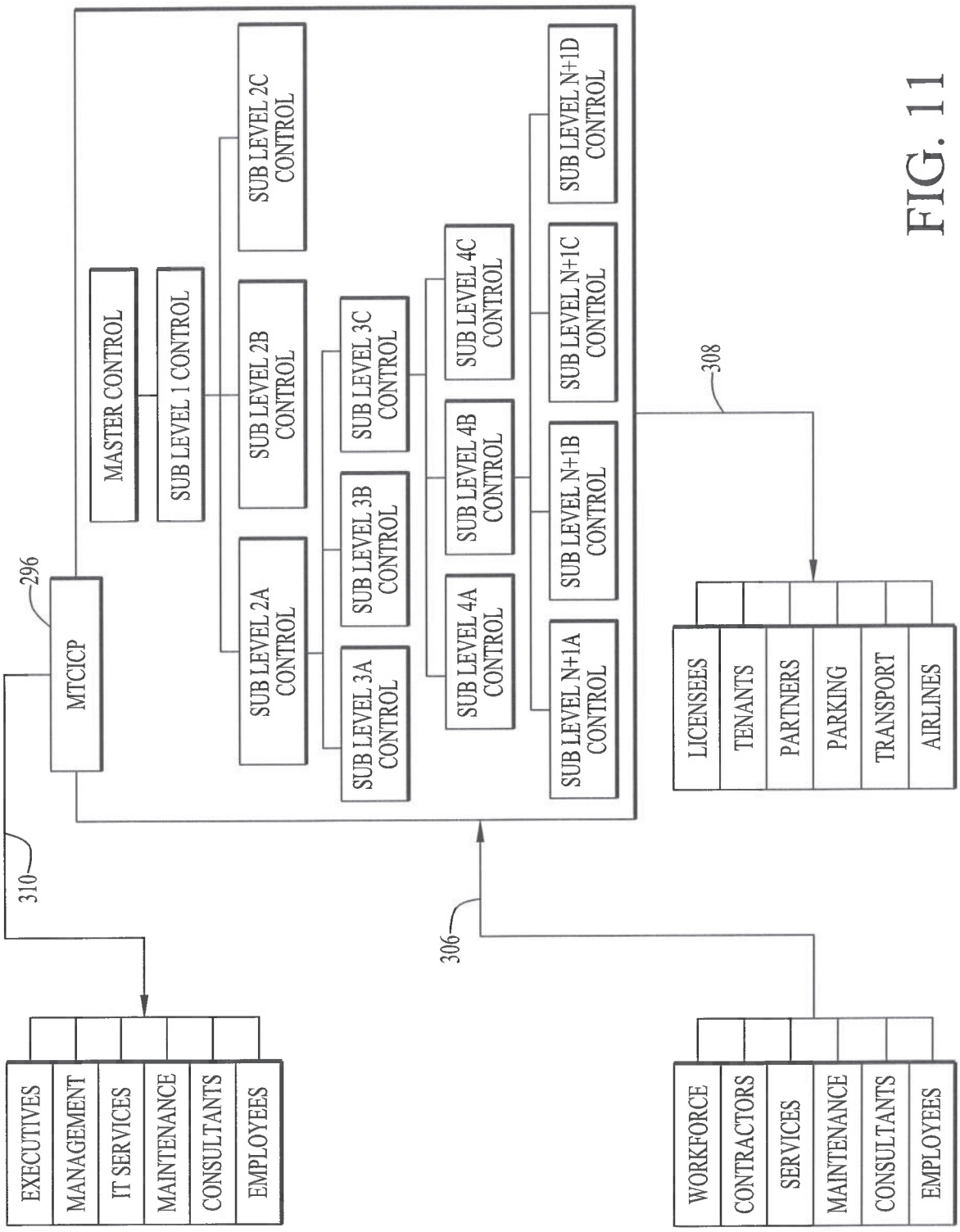

MTCICP
296
MASTER CONTROL
SUB LEVEL 1 CONTROL
SUB LEVEL 2A CONTROL
SUB LEVEL 2B CONTROL
SUB LEVEL 2C CONTROL
SUB LEVEL 3A CONTROL
SUB LEVEL 3B CONTROL
SUB LEVEL 3C CONTROL
SUB LEVEL 4A CONTROL
SUB LEVEL 4B CONTROL
SUB LEVEL 4C CONTROL
SUB LEVEL N+1A CONTROL
SUB LEVEL N+1B CONTROL
SUB LEVEL N+1C CONTROL
SUB LEVEL N+1D CONTROL
308
LICENSEES
TENANTS
PARTNERS
PARKING
TRANSPORT
AIRLINES
310
EXECUTIVES
MANAGEMENT
IT SERVICES
MAINTENANCE
CONSULTANTS
EMPLOYEES
306
WORKFORCE
CONTRACTORS
SERVICES
MAINTENANCE
CONSULTANTS
EMPLOYEES

FIG. 11

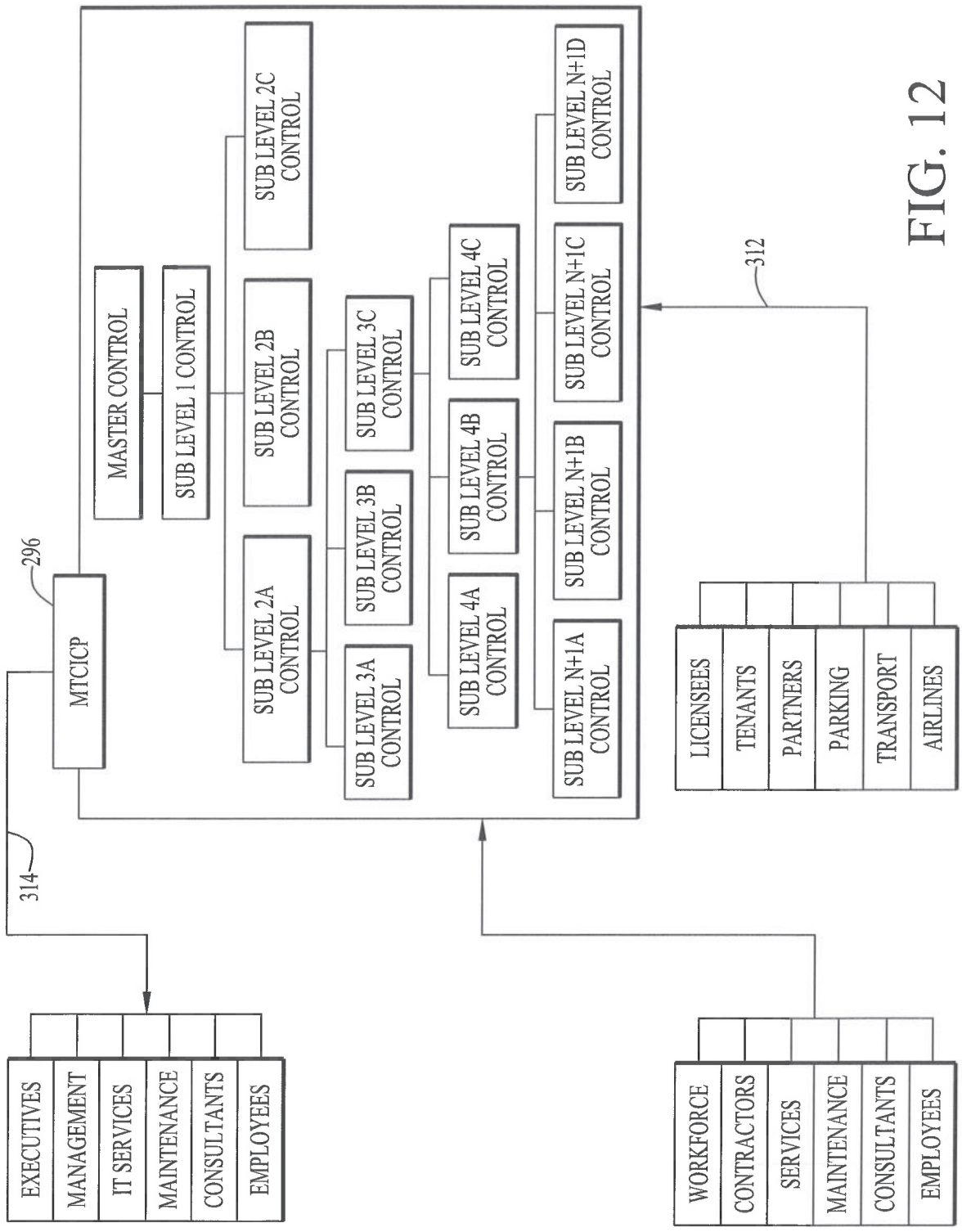

MTCICP
296
MASTER CONTROL
SUB LEVEL 1 CONTROL
SUB LEVEL 2A CONTROL
SUB LEVEL 2B CONTROL
SUB LEVEL 2C CONTROL
SUB LEVEL 3A CONTROL
SUB LEVEL 3B CONTROL
SUB LEVEL 3C CONTROL
SUB LEVEL 4A CONTROL
SUB LEVEL 4B CONTROL
SUB LEVEL 4C CONTROL
SUB LEVEL N+1A CONTROL
SUB LEVEL N+1B CONTROL
SUB LEVEL N+1C CONTROL
SUB LEVEL N+1D CONTROL
312
LICENSEES
TENANTS
PARTNERS
PARKING
TRANSPORT
AIRLINES
314
EXECUTIVES
MANAGEMENT
IT SERVICES
MAINTENANCE
CONSULTANTS
EMPLOYEES
WORKFORCE
CONTRACTORS
SERVICES
MAINTENANCE
CONSULTANTS
EMPLOYEES

FIG. 12

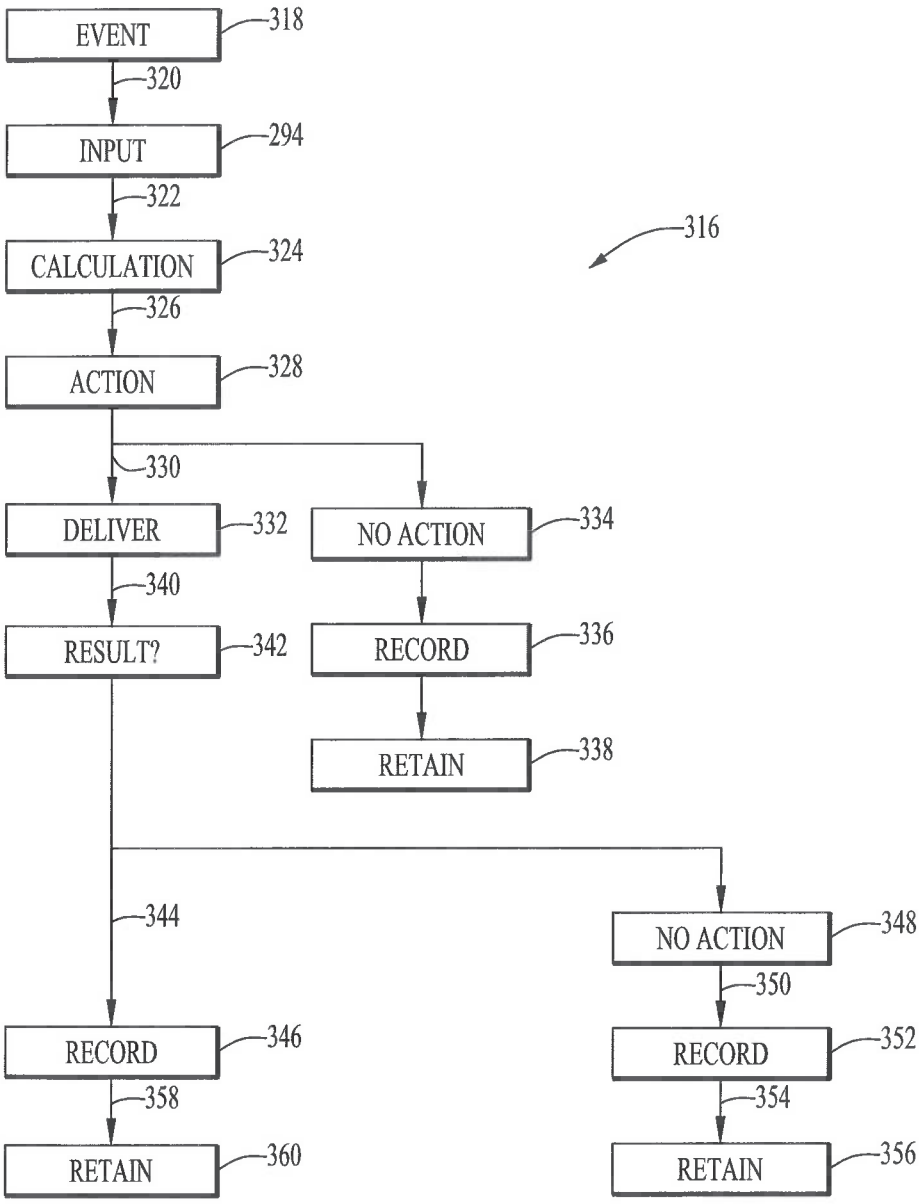

EVENT
318
320
INPUT
294
322
CALCULATION
324
326
ACTION
328
316
330
DELIVER
332
NO ACTION
334
340
RESULT?
342
RECORD
336
RETAIN
338
344
NO ACTION
348
350
RECORD
346
RECORD
352
358
354
RETAIN
360
RETAIN
356

FIG. 13

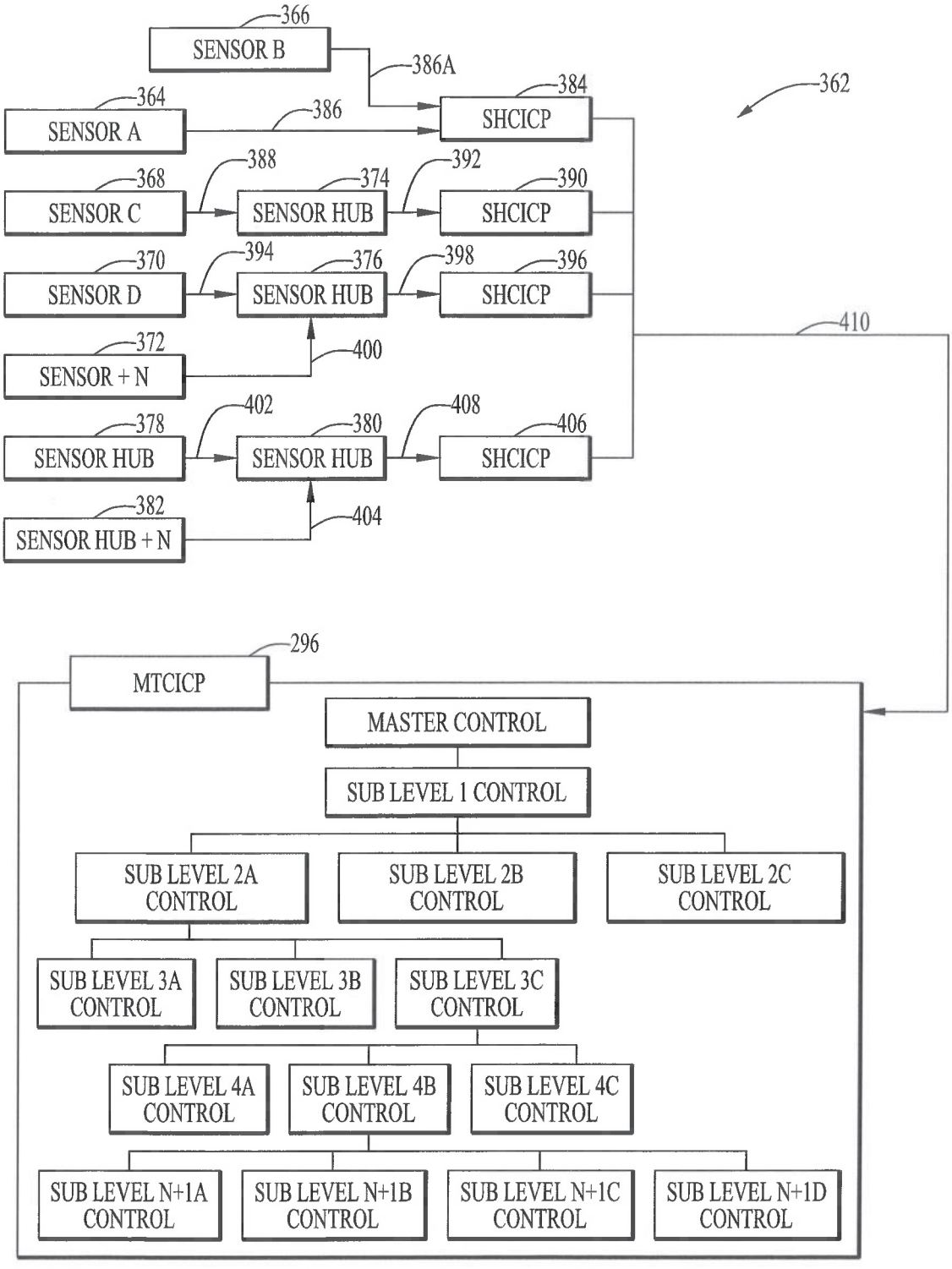

366
SENSOR B
386A
384
362
364
SENSOR A
386
SHCICP
388
392
368
374
390
SENSOR C
SENSOR HUB
SHCICP
394
398
370
376
396
SENSOR D
SENSOR HUB
SHCICP
410
372
400
SENSOR + N
402
408
378
380
406
SENSOR HUB
SENSOR HUB
SHCICP
382
404
SENSOR HUB + N
296
MTCICP
MASTER CONTROL
SUB LEVEL 1 CONTROL
SUB LEVEL 2A CONTROL
SUB LEVEL 2B CONTROL
SUB LEVEL 2C CONTROL
SUB LEVEL 3A CONTROL
SUB LEVEL 3B CONTROL
SUB LEVEL 3C CONTROL
SUB LEVEL 4A CONTROL
SUB LEVEL 4B CONTROL
SUB LEVEL 4C CONTROL
SUB LEVEL N+1A CONTROL
SUB LEVEL N+1B CONTROL
SUB LEVEL N+1C CONTROL
SUB LEVEL N+1D CONTROL

FIG. 14

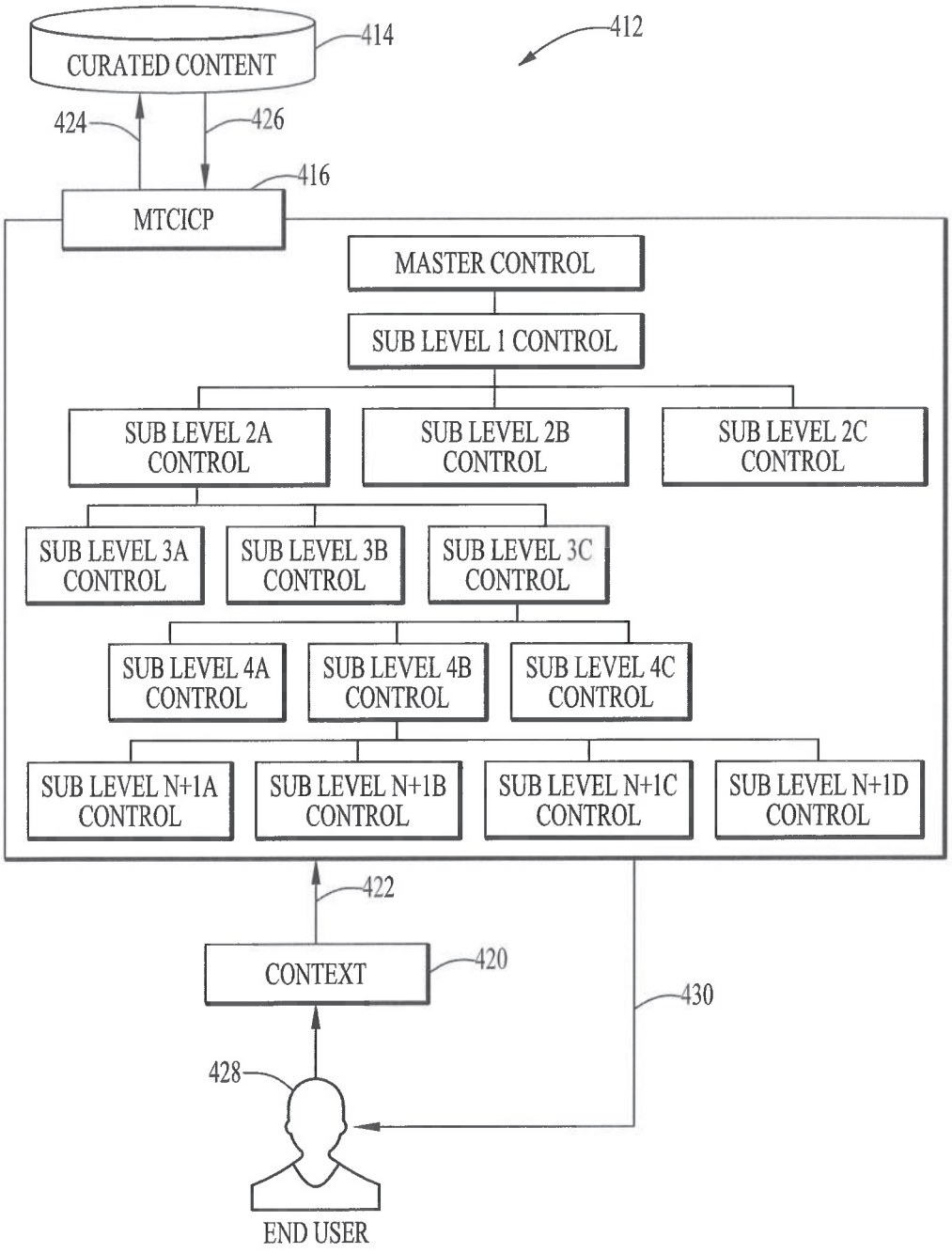

CURATED CONTENT
414
412
424
426
416
MTCICP
MASTER CONTROL
SUB LEVEL 1 CONTROL
SUB LEVEL 2A CONTROL
SUB LEVEL 2B CONTROL
SUB LEVEL 2C CONTROL
SUB LEVEL 3A CONTROL
SUB LEVEL 3B CONTROL
SUB LEVEL 3C CONTROL
SUB LEVEL 4A CONTROL
SUB LEVEL 4B CONTROL
SUB LEVEL 4C CONTROL
SUB LEVEL N+1A CONTROL
SUB LEVEL N+1B CONTROL
SUB LEVEL N+1C CONTROL
SUB LEVEL N+1D CONTROL
422
CONTEXT
420
430
428
END USER

FIG. 15

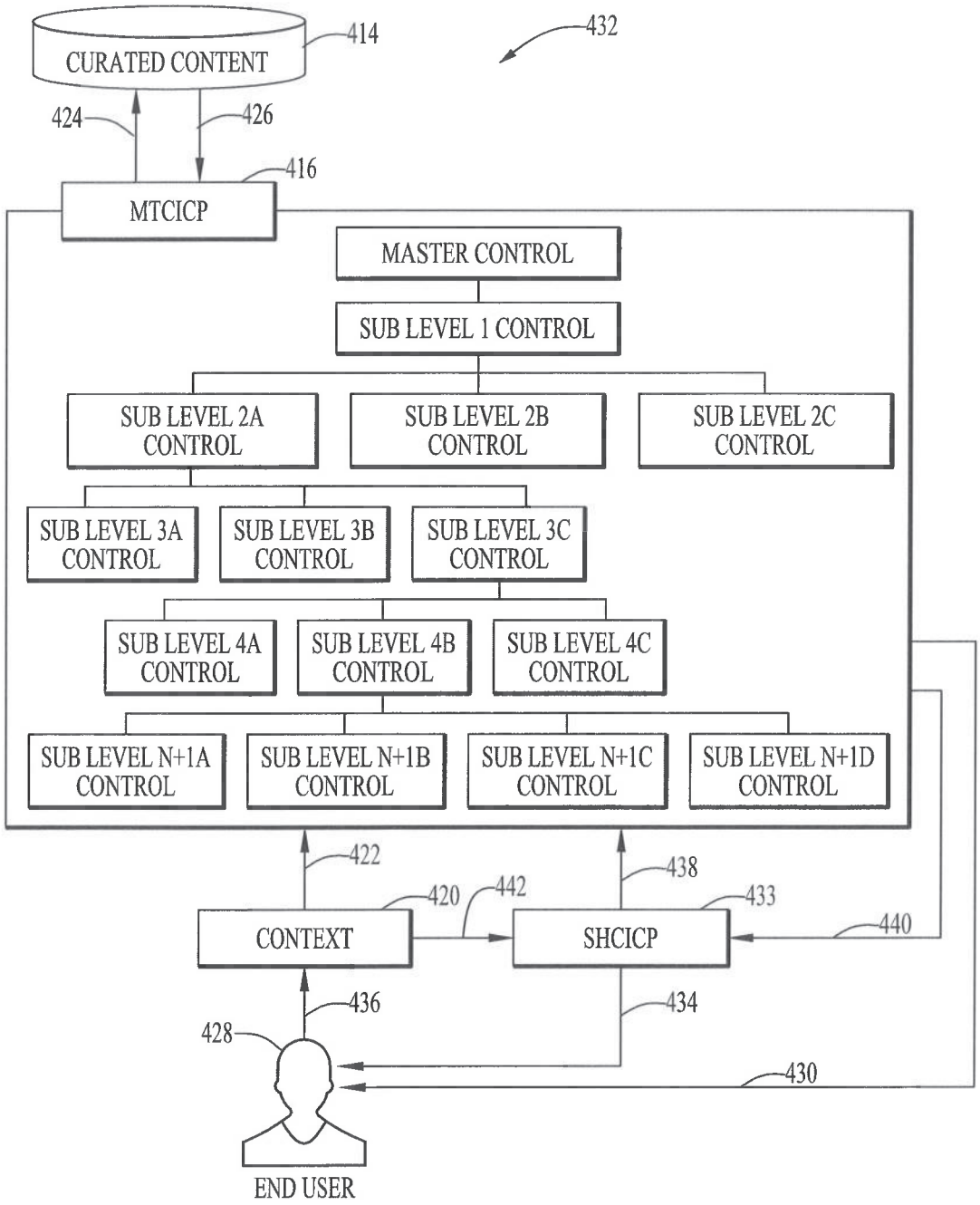

CURATED CONTENT
414
432
424
426
416
MTCICP
MASTER CONTROL
SUB LEVEL 1 CONTROL
SUB LEVEL 2A CONTROL
SUB LEVEL 2B CONTROL
SUB LEVEL 2C CONTROL
SUB LEVEL 3A CONTROL
SUB LEVEL 3B CONTROL
SUB LEVEL 3C CONTROL
SUB LEVEL 4A CONTROL
SUB LEVEL 4B CONTROL
SUB LEVEL 4C CONTROL
SUB LEVEL N+1A CONTROL
SUB LEVEL N+1B CONTROL
SUB LEVEL N+1C CONTROL
SUB LEVEL N+1D CONTROL
422
420
442
438
433
440
CONTEXT
SHCICP
436
434
428
430
END USER

FIG. 16

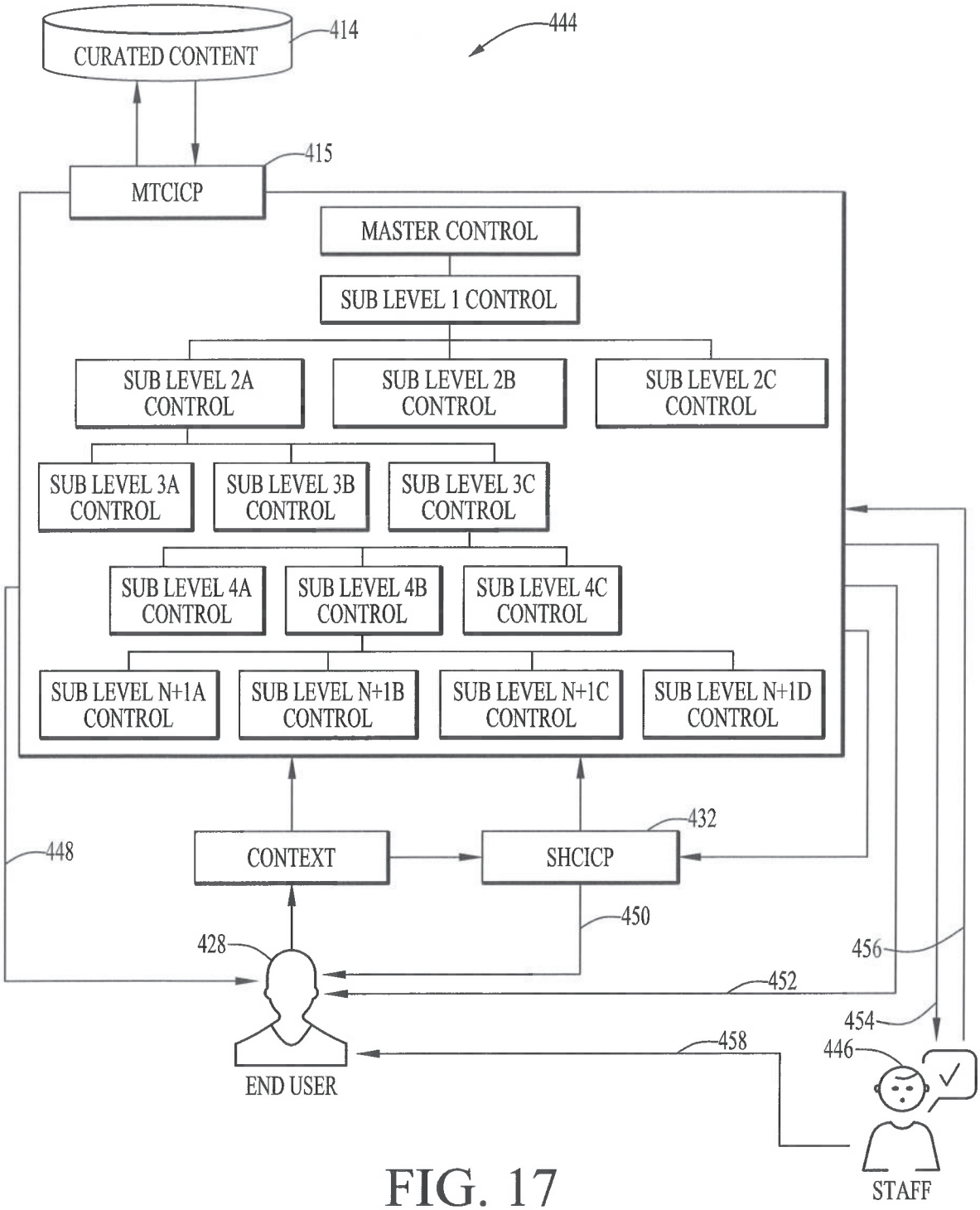

CURATED CONTENT
414
444
415
MTCICP
MASTER CONTROL
SUB LEVEL 1 CONTROL
SUB LEVEL 2A CONTROL
SUB LEVEL 2B CONTROL
SUB LEVEL 2C CONTROL
SUB LEVEL 3A CONTROL
SUB LEVEL 3B CONTROL
SUB LEVEL 3C CONTROL
SUB LEVEL 4A CONTROL
SUB LEVEL 4B CONTROL
SUB LEVEL 4C CONTROL
SUB LEVEL N+1A CONTROL
SUB LEVEL N+1B CONTROL
SUB LEVEL N+1C CONTROL
SUB LEVEL N+1D CONTROL
448
CONTEXT
SHCICP
432
450
428
456
452
454
458
446
END USER
STAFF

FIG. 17

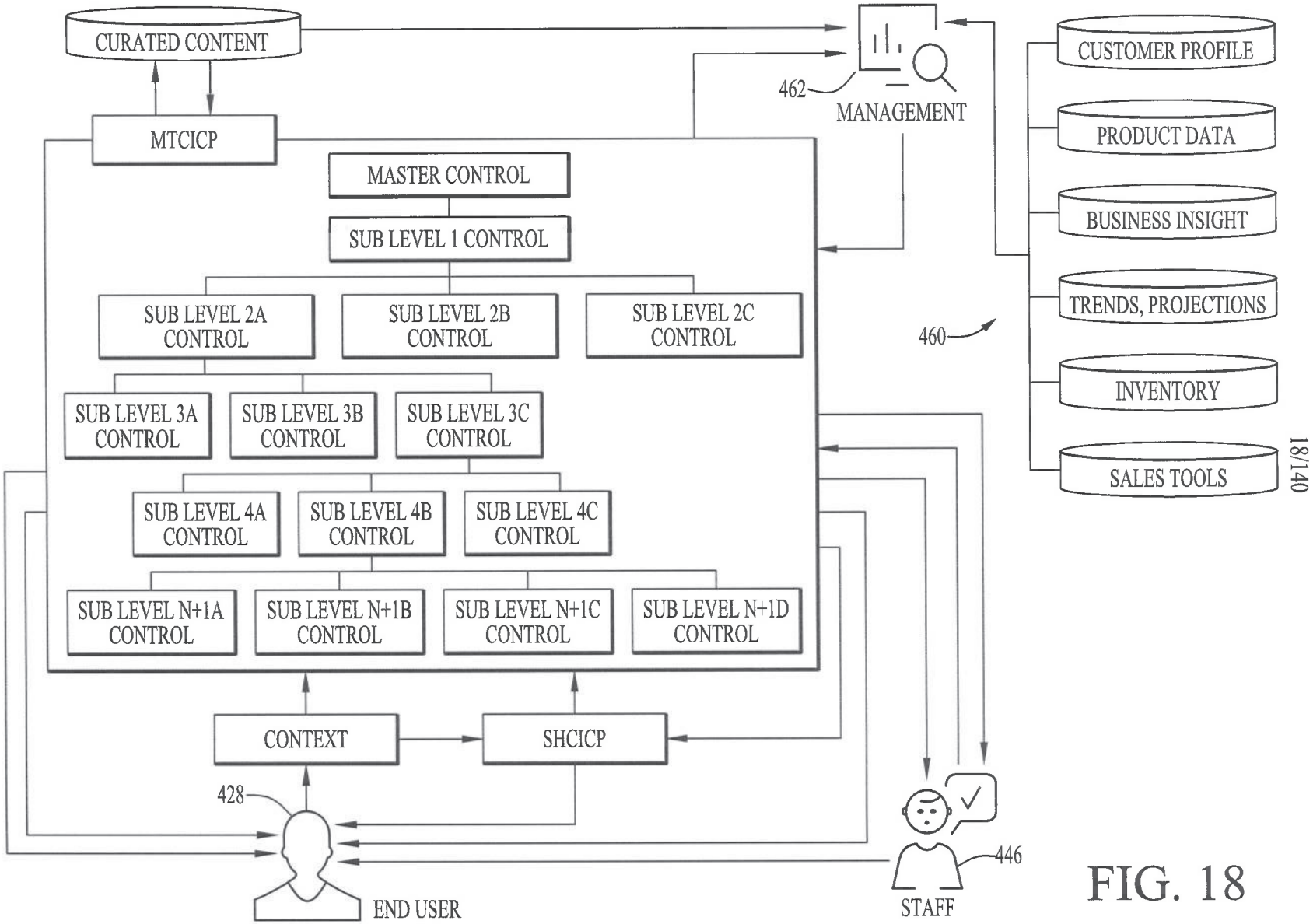

CURATED CONTENT
MTCICP
462
MANAGEMENT
CUSTOMER PROFILE
PRODUCT DATA
BUSINESS INSIGHT
TRENDS, PROJECTIONS
INVENTORY
SALES TOOLS
460
18/140
MASTER CONTROL
SUB LEVEL 1 CONTROL
SUB LEVEL 2A CONTROL
SUB LEVEL 2B CONTROL
SUB LEVEL 2C CONTROL
SUB LEVEL 3A CONTROL
SUB LEVEL 3B CONTROL
SUB LEVEL 3C CONTROL
SUB LEVEL 4A CONTROL
SUB LEVEL 4B CONTROL
SUB LEVEL 4C CONTROL
SUB LEVEL N+1A CONTROL
SUB LEVEL N+1B CONTROL
SUB LEVEL N+1C CONTROL
SUB LEVEL N+1D CONTROL
CONTEXT
SHCICP
428
END USER
446
STAFF

FIG. 18

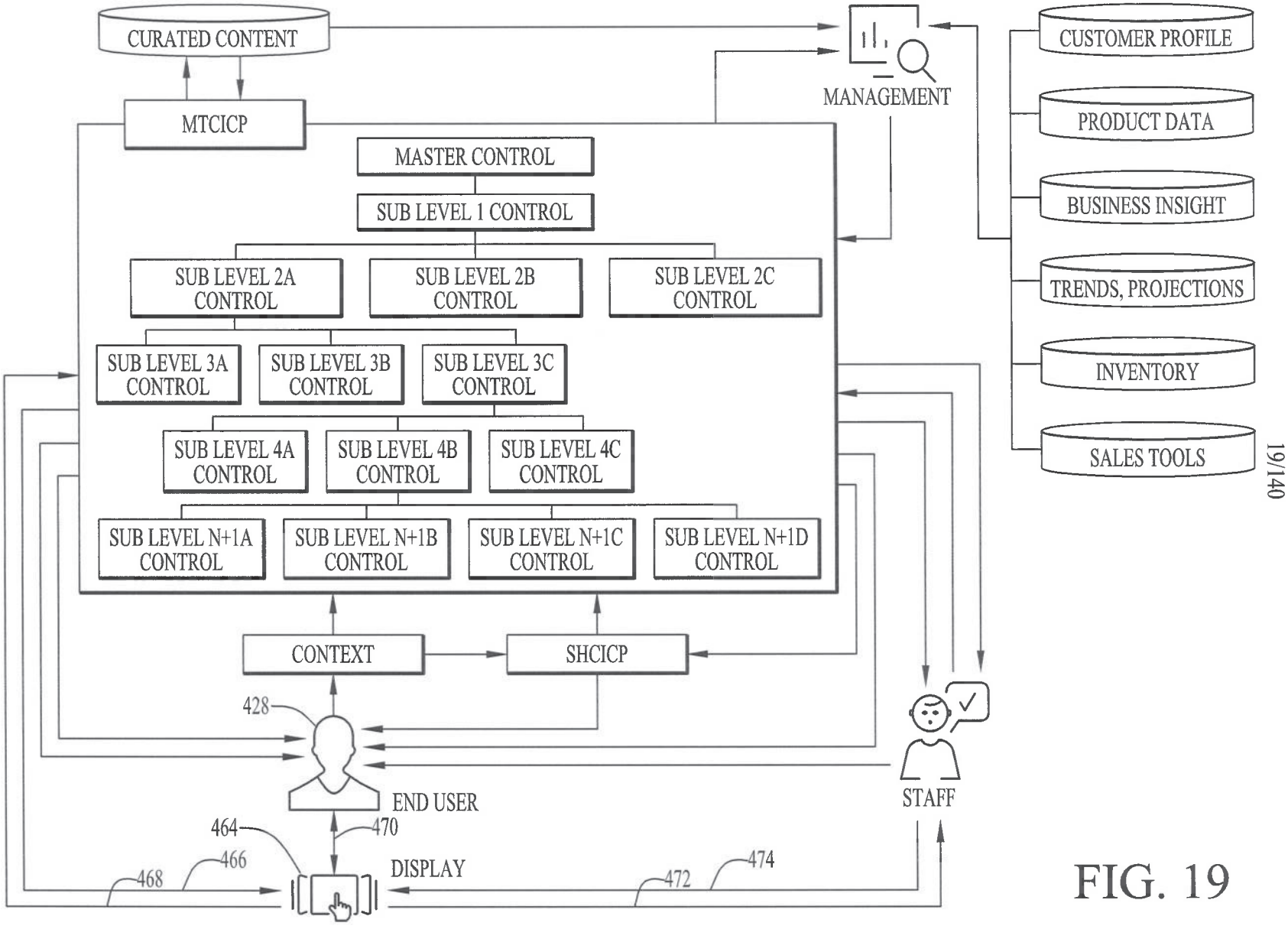

CURATED CONTENT
MTCICP
MANAGEMENT
CUSTOMER PROFILE
PRODUCT DATA
BUSINESS INSIGHT
TRENDS, PROJECTIONS
INVENTORY
SALES TOOLS
MASTER CONTROL
SUB LEVEL 1 CONTROL
SUB LEVEL 2A CONTROL
SUB LEVEL 2B CONTROL
SUB LEVEL 2C CONTROL
SUB LEVEL 3A CONTROL
SUB LEVEL 3B CONTROL
SUB LEVEL 3C CONTROL
SUB LEVEL 4A CONTROL
SUB LEVEL 4B CONTROL
SUB LEVEL 4C CONTROL
SUB LEVEL N+1A CONTROL
SUB LEVEL N+1B CONTROL
SUB LEVEL N+1C CONTROL
SUB LEVEL N+1D CONTROL
CONTEXT
SHCICP
428
END USER
STAFF
464
470
466
468
DISPLAY
472
474

FIG. 19

FIG. 20A
FIG. 20B
FIG. 20C

FIG. 20

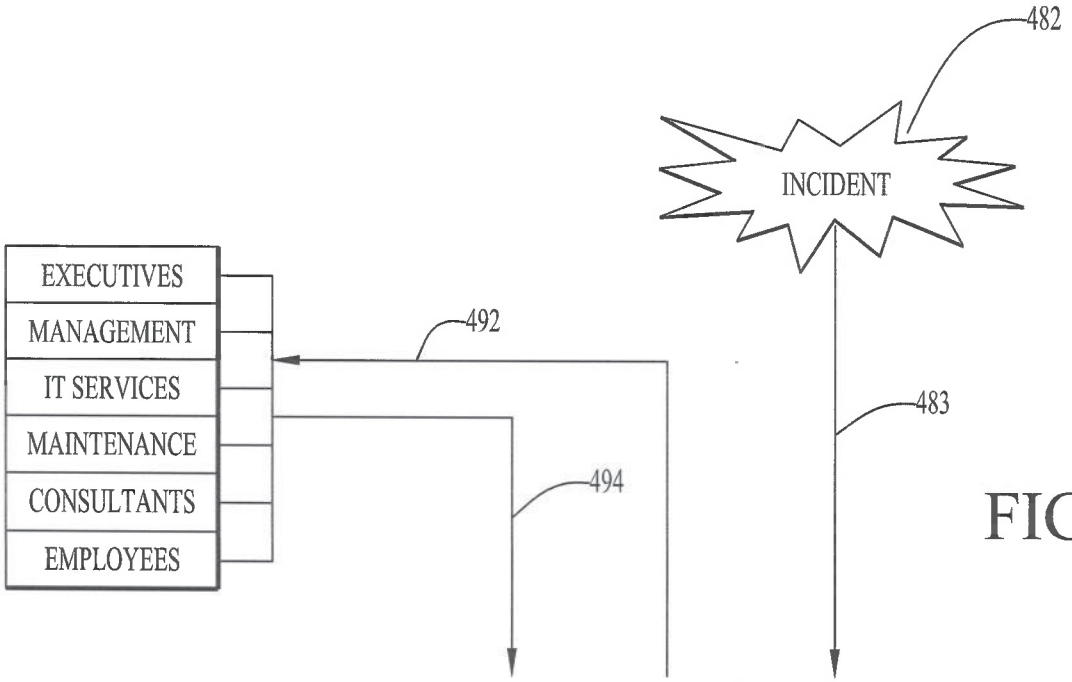


FIG. 20A

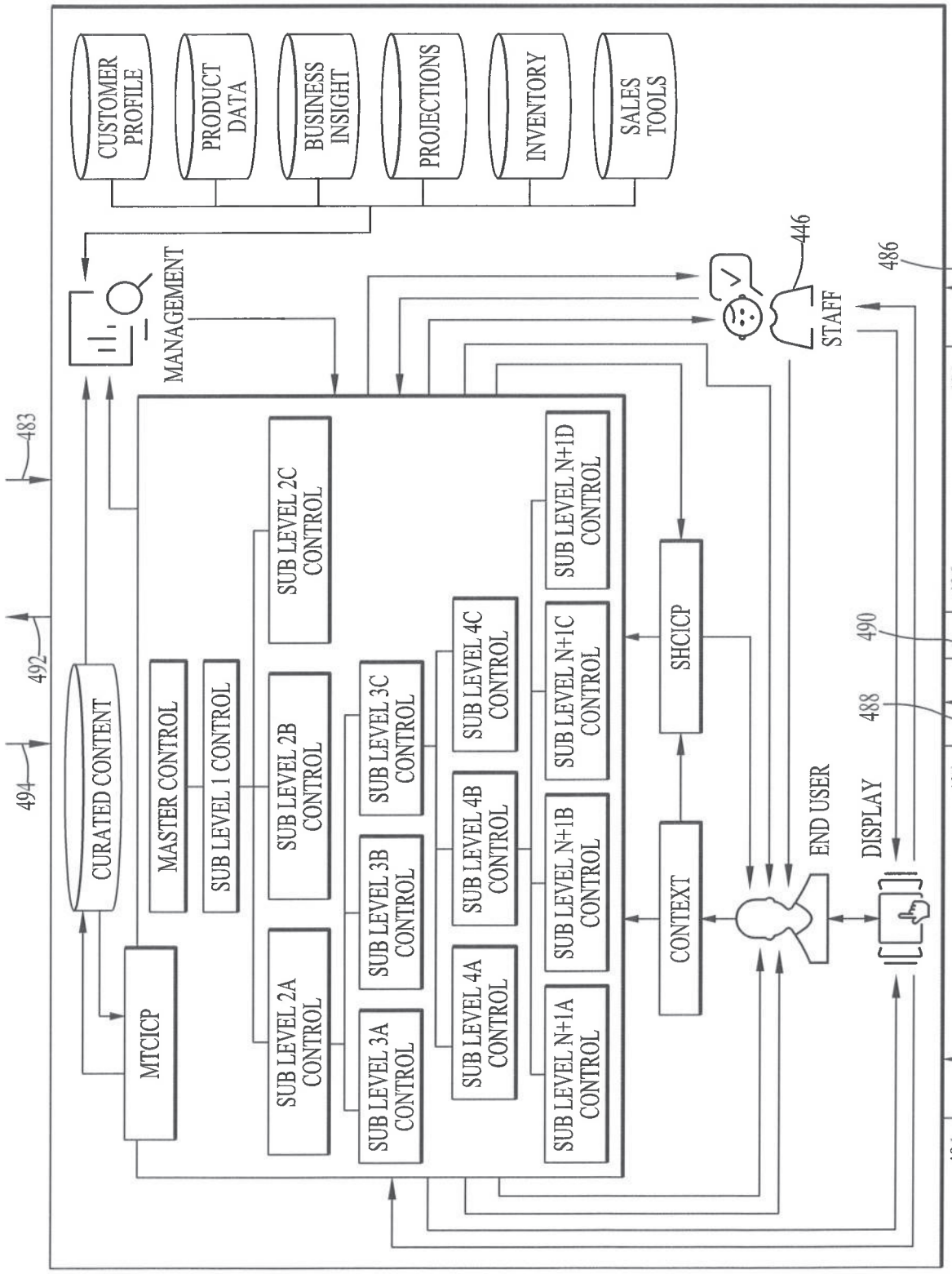

CUSTOMER PROFILE
PRODUCT DATA
BUSINESS INSIGHT
PROJECTIONS
INVENTORY
SALES TOOLS
MANAGEMENT
STAFF
446
486
484
483
492
494
CURATED CONTENT
MASTER CONTROL
SUB LEVEL 1 CONTROL
SUB LEVEL 2A CONTROL
SUB LEVEL 2B CONTROL
SUB LEVEL 2C CONTROL
SUB LEVEL 3A CONTROL
SUB LEVEL 3B CONTROL
SUB LEVEL 3C CONTROL
SUB LEVEL 4A CONTROL
SUB LEVEL 4B CONTROL
SUB LEVEL 4C CONTROL
SUB LEVEL N+1A CONTROL
SUB LEVEL N+1B CONTROL
SUB LEVEL N+1C CONTROL
SUB LEVEL N+1D CONTROL
MTCICP
SHCICP
CONTEXT
END USER
DISPLAY
490
488
496

FIG. 20B

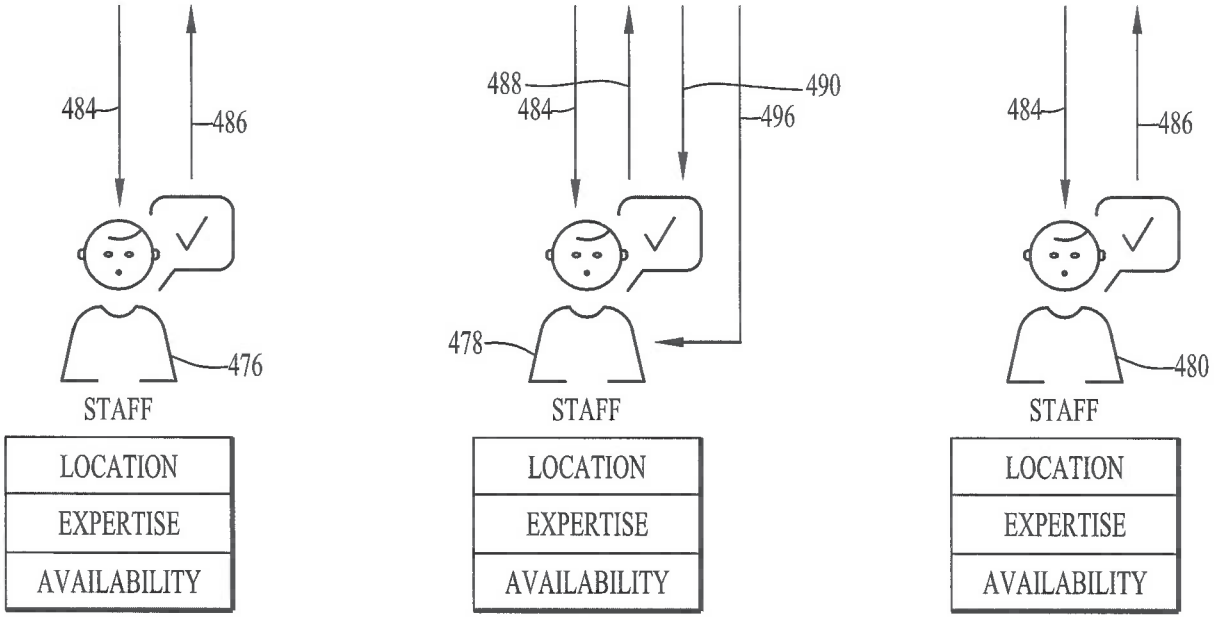

484
486
476
STAFF
LOCATION
EXPERTISE
AVAILABILITY
488
484
490
496
478
STAFF
LOCATION
EXPERTISE
AVAILABILITY
484
486
480
STAFF
LOCATION
EXPERTISE
AVAILABILITY

FIG. 20C

FIG. 21A
FIG. 21B
FIG. 21C

FIG. 21

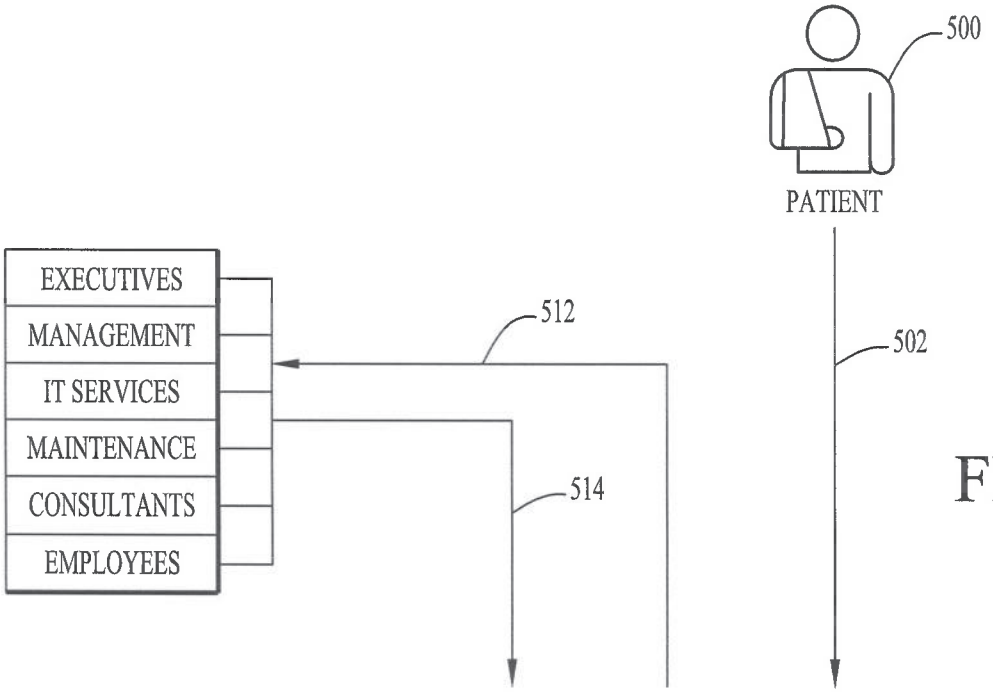


FIG. 21A

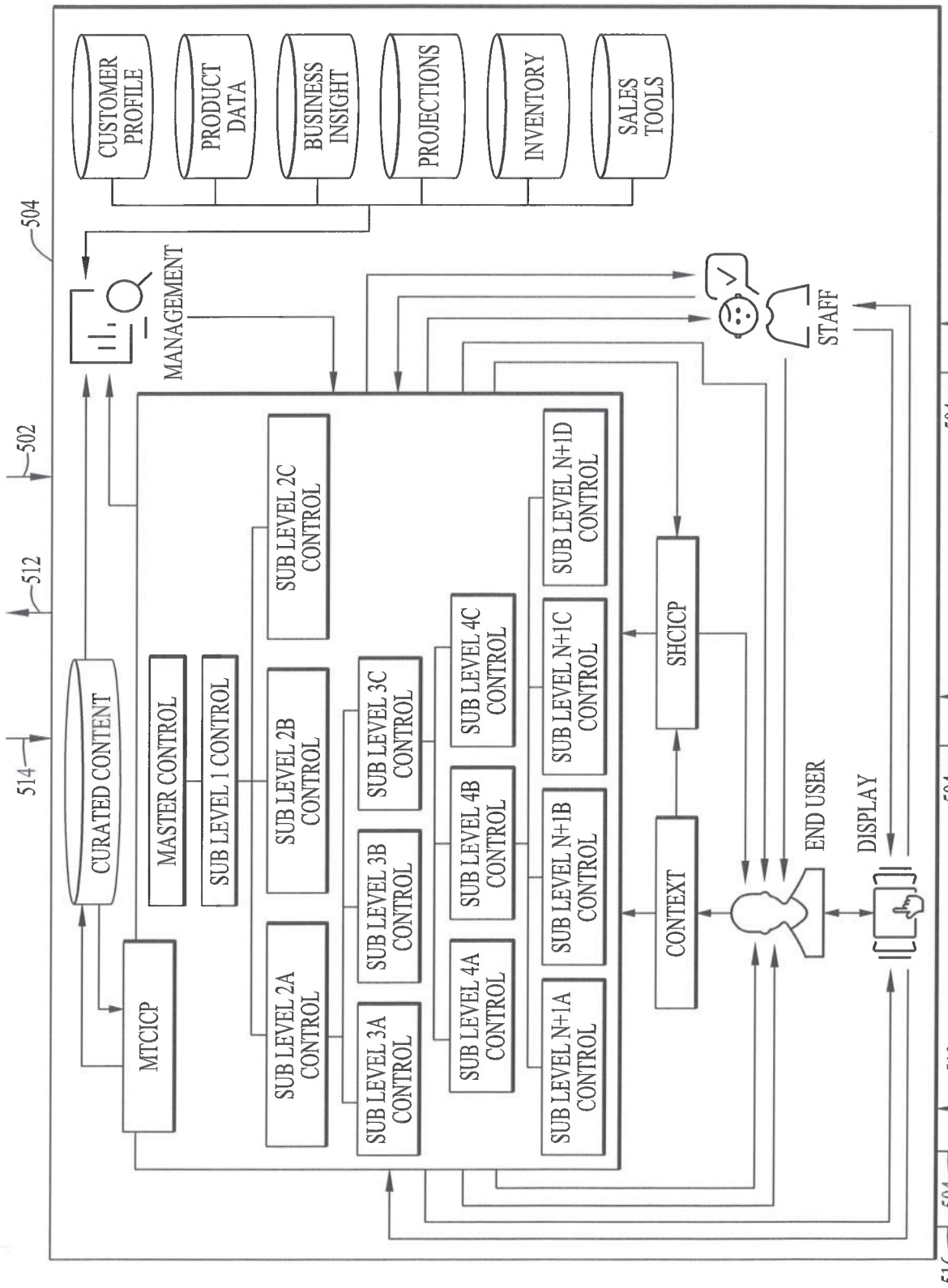

CUSTOMER PROFILE
PRODUCT DATA
BUSINESS INSIGHT
PROJECTIONS
INVENTORY
SALES TOOLS
504
MANAGEMENT
STAFF
502
512
514
CURATED CONTENT
MASTER CONTROL
SUB LEVEL 1 CONTROL
SUB LEVEL 2C CONTROL
SUB LEVEL 2B CONTROL
SUB LEVEL 2A CONTROL
SUB LEVEL 3C CONTROL
SUB LEVEL 3B CONTROL
SUB LEVEL 3A CONTROL
SUB LEVEL 4C CONTROL
SUB LEVEL 4B CONTROL
SUB LEVEL 4A CONTROL
SUB LEVEL N+1D CONTROL
SUB LEVEL N+1C CONTROL
SUB LEVEL N+1B CONTROL
SUB LEVEL N+1A CONTROL
SHCICP
CONTEXT
MTCICP
END USER
DISPLAY
504
504
504
510
504
516

FIG. 21B

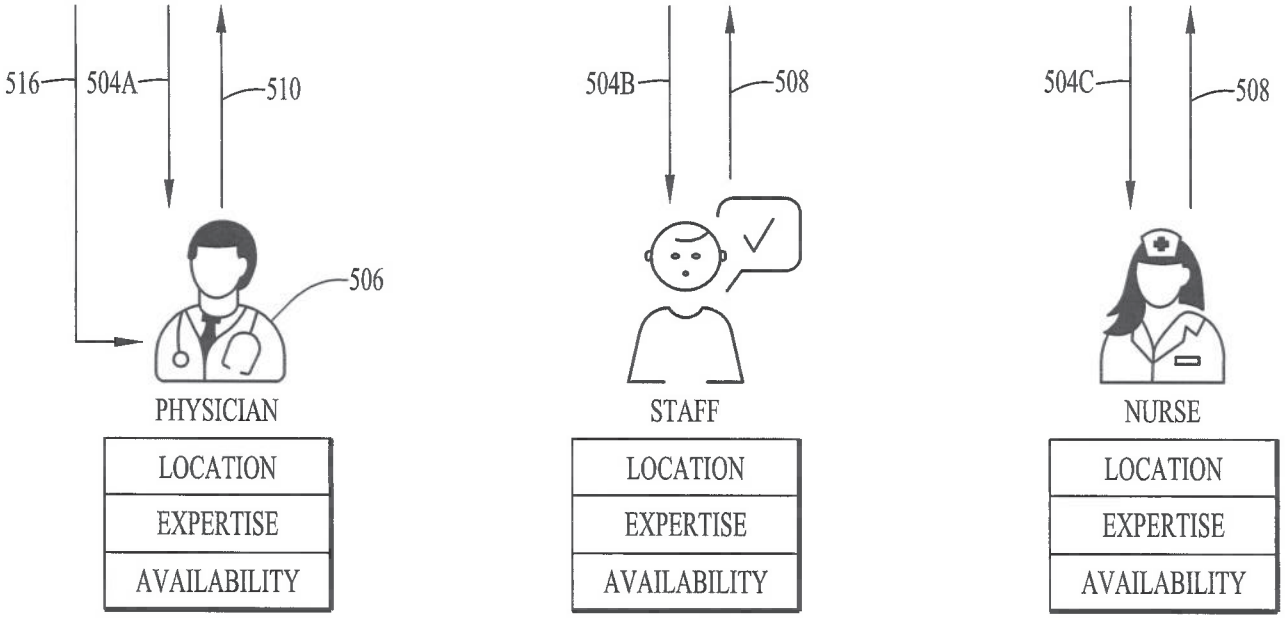

516
504A
510
506
PHYSICIAN
LOCATION
EXPERTISE
AVAILABILITY
504B
508
STAFF
LOCATION
EXPERTISE
AVAILABILITY
504C
508
NURSE
LOCATION
EXPERTISE
AVAILABILITY

FIG. 21C

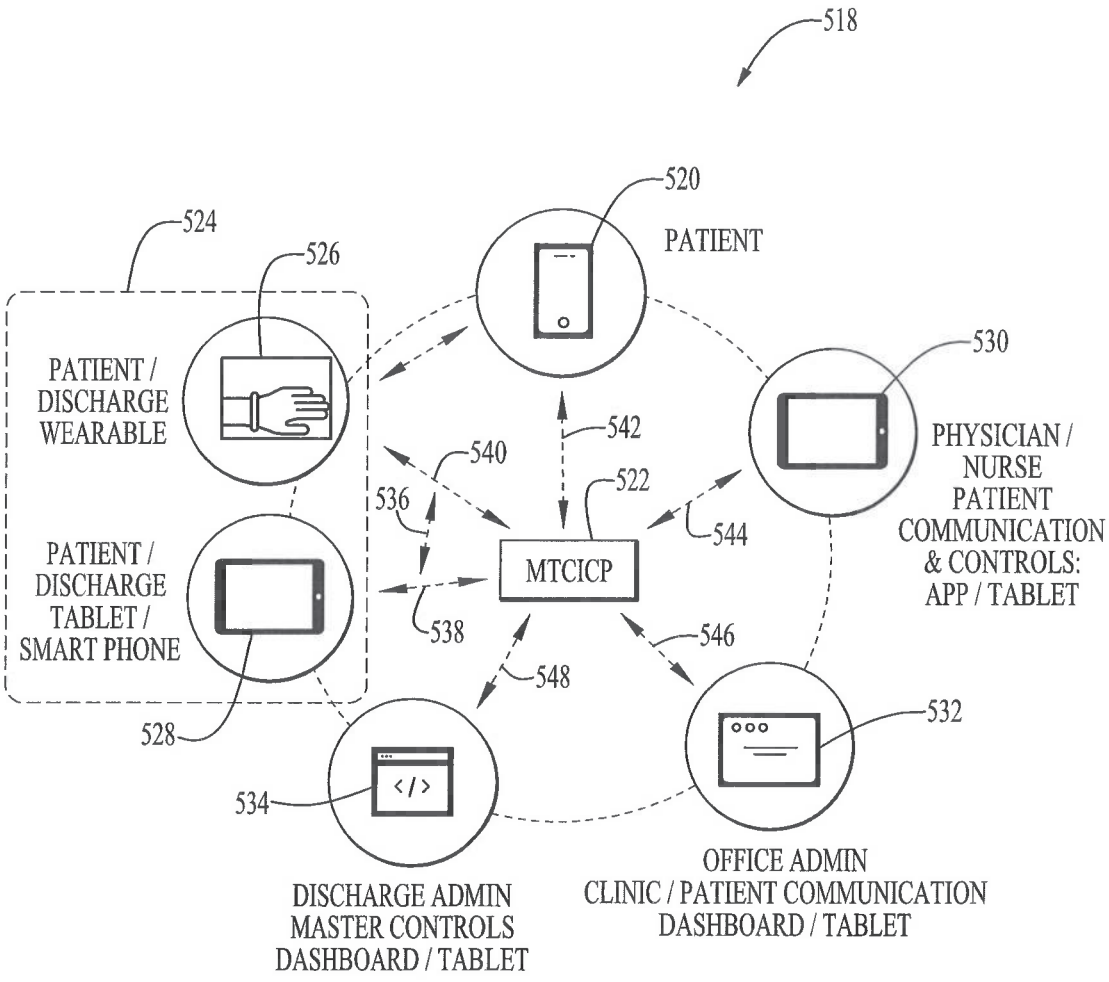

518
520
PATIENT
524
526
PATIENT / DISCHARGE WEARABLE
PATIENT / DISCHARGE TABLET / SMART PHONE
528
530
PHYSICIAN / NURSE PATIENT COMMUNICATION & CONTROLS: APP / TABLET
542
540
536
522
544
MTCICP
538
546
548
532
534
DISCHARGE ADMIN MASTER CONTROLS DASHBOARD / TABLET
OFFICE ADMIN CLINIC / PATIENT COMMUNICATION DASHBOARD / TABLET

FIG. 22

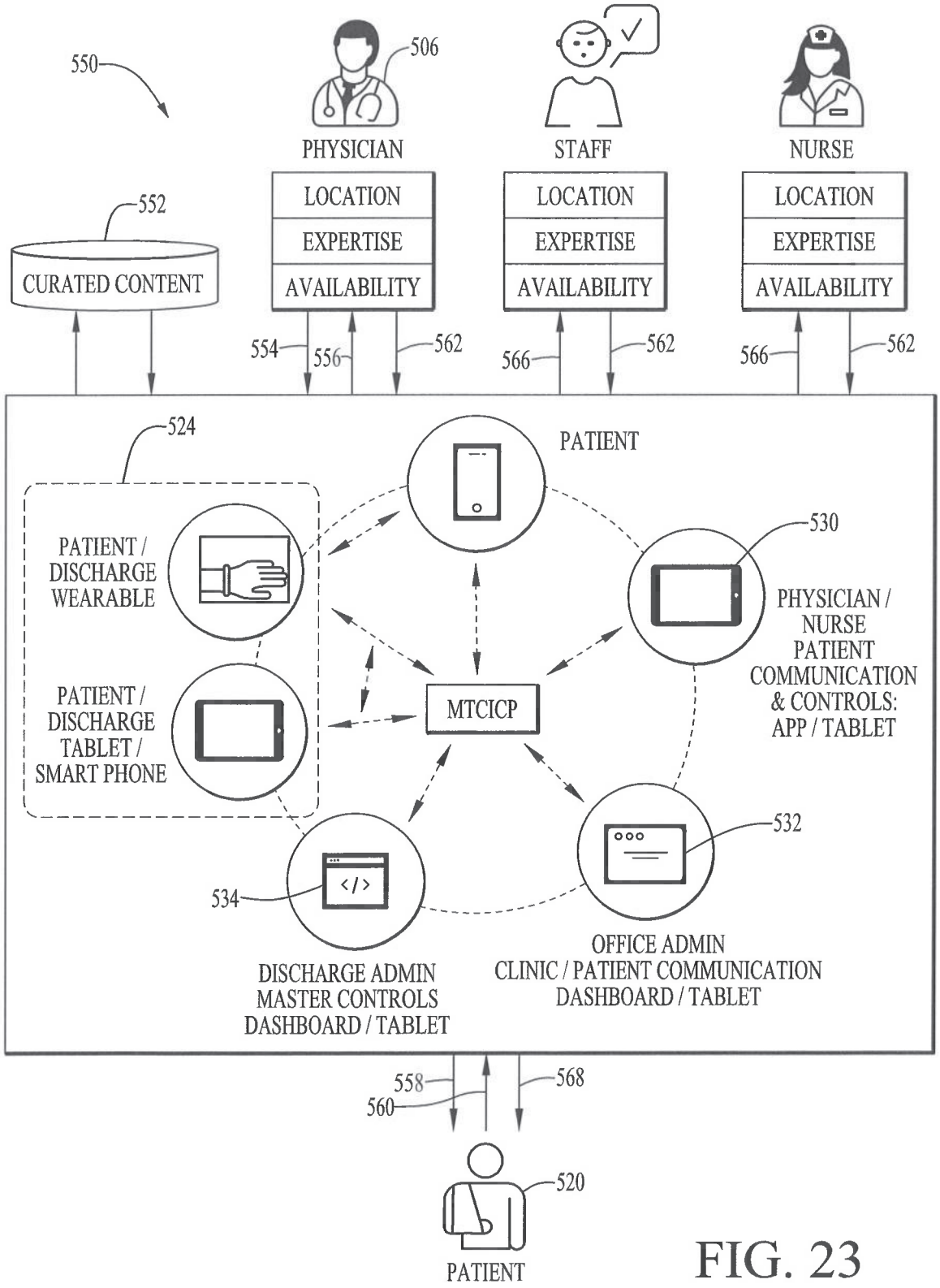

550
506
PHYSICIAN
STAFF
NURSE
552
CURATED CONTENT
LOCATION
EXPERTISE
AVAILABILITY
LOCATION
EXPERTISE
AVAILABILITY
LOCATION
EXPERTISE
AVAILABILITY
554
556
562
566
562
566
562
524
PATIENT
PATIENT / DISCHARGE WEARABLE
PATIENT / DISCHARGE TABLET / SMART PHONE
530
PHYSICIAN / NURSE PATIENT COMMUNICATION & CONTROLS: APP / TABLET
MTCICP
532
534
DISCHARGE ADMIN MASTER CONTROLS DASHBOARD / TABLET
OFFICE ADMIN CLINIC / PATIENT COMMUNICATION DASHBOARD / TABLET
558
560
568
520
PATIENT

FIG. 23

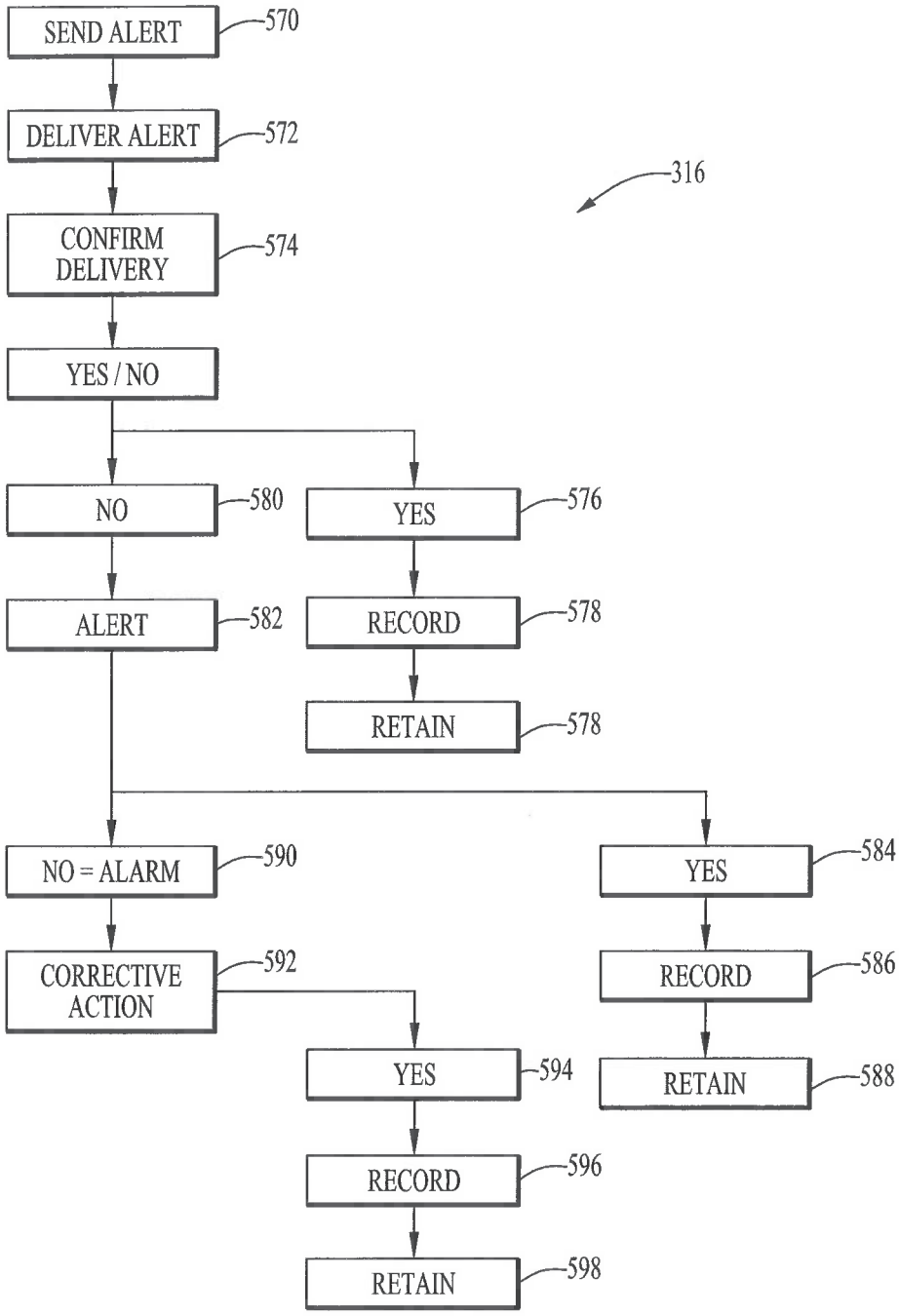

SEND ALERT
570
DELIVER ALERT
572
316
CONFIRM DELIVERY
574
YES / NO
NO
580
YES
576
ALERT
582
RECORD
578
RETAIN
578
NO = ALARM
590
YES
584
CORRECTIVE ACTION
592
RECORD
586
YES
594
RETAIN
588
RECORD
596
RETAIN
598

FIG. 24

FIG. 25A	FIG. 25B

FIG. 25

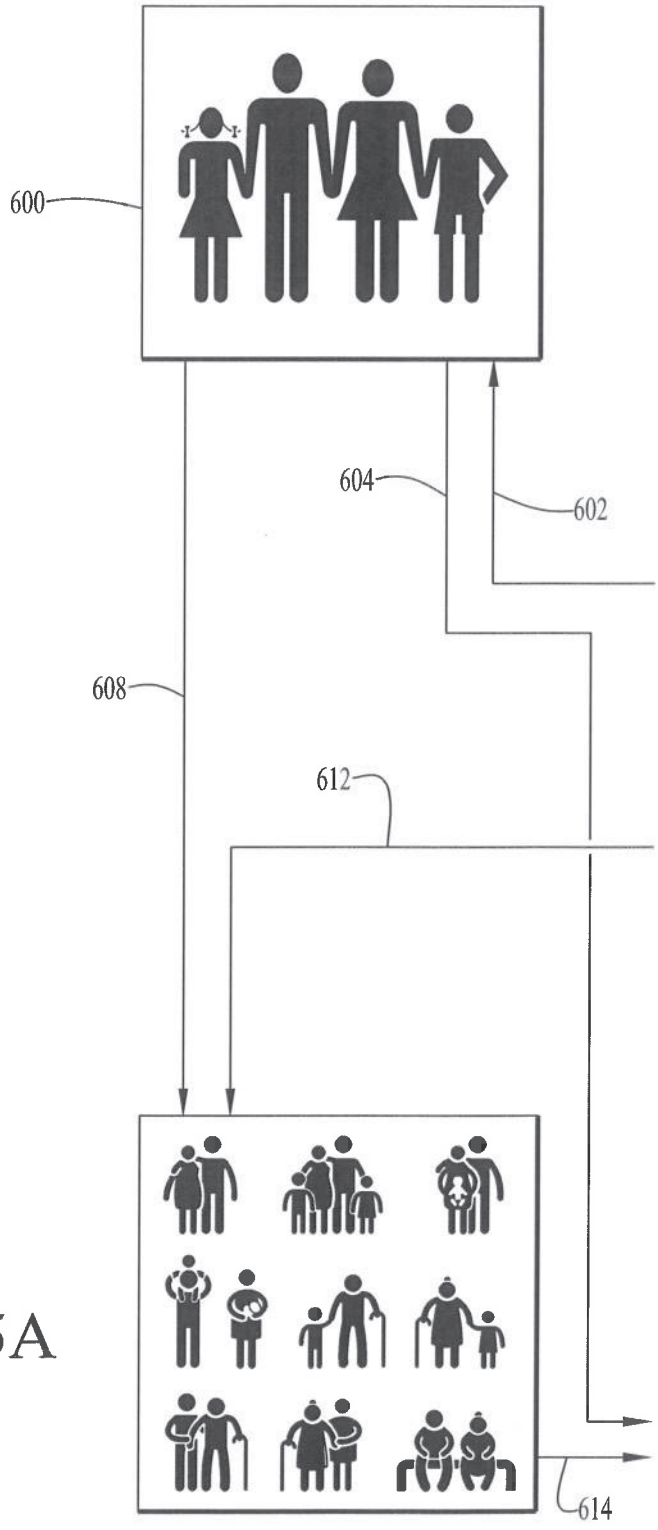


FIG. 25A

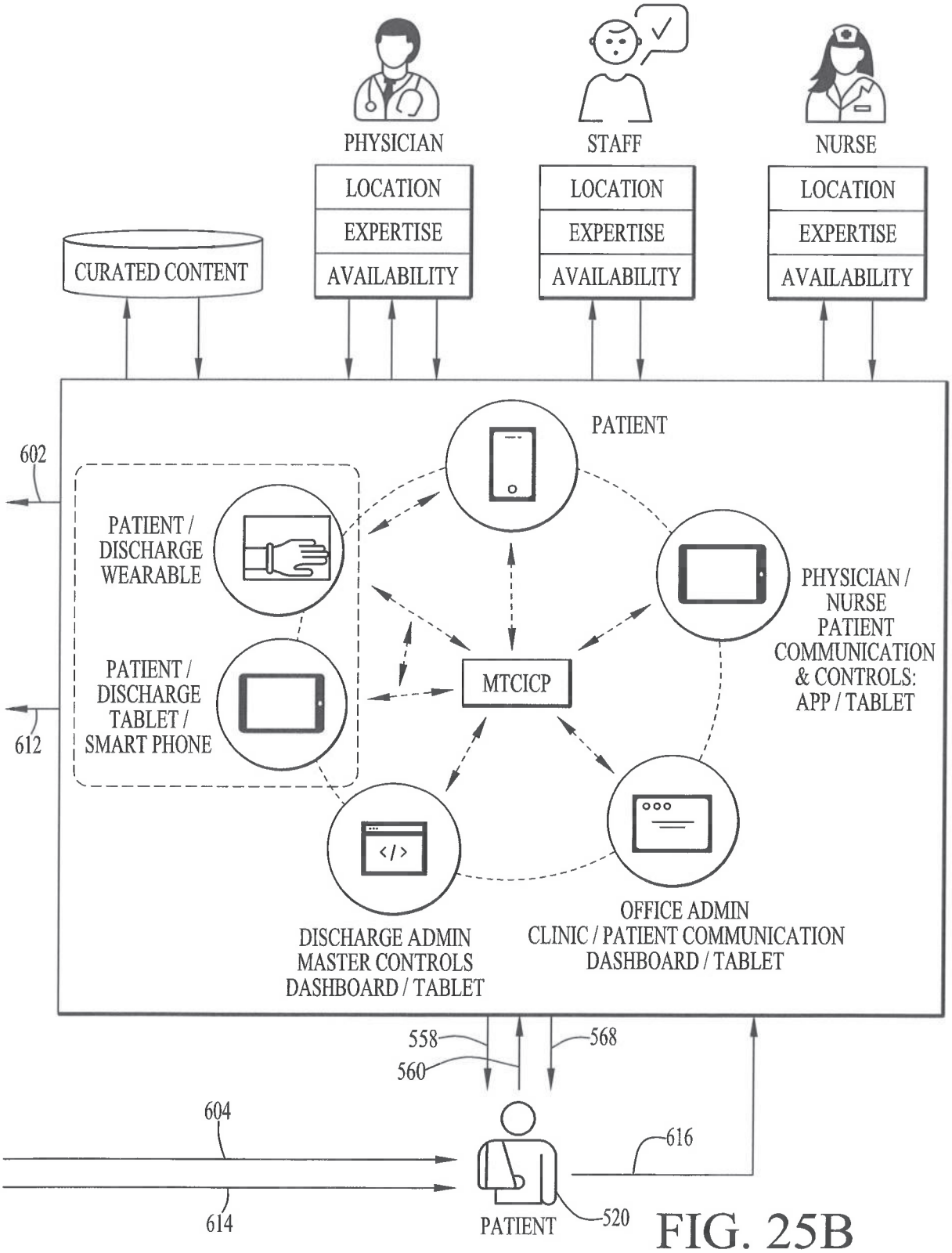

PHYSICIAN
STAFF
NURSE
LOCATION
EXPERTISE
AVAILABILITY
CURATED CONTENT
602
PATIENT
PATIENT / DISCHARGE WEARABLE
PATIENT / DISCHARGE TABLET / SMART PHONE
612
MTCICP
PHYSICIAN / NURSE PATIENT COMMUNICATION & CONTROLS: APP / TABLET
DISCHARGE ADMIN MASTER CONTROLS DASHBOARD / TABLET
OFFICE ADMIN CLINIC / PATIENT COMMUNICATION DASHBOARD / TABLET
558
560
568
604
614
616
PATIENT
520

FIG. 25B

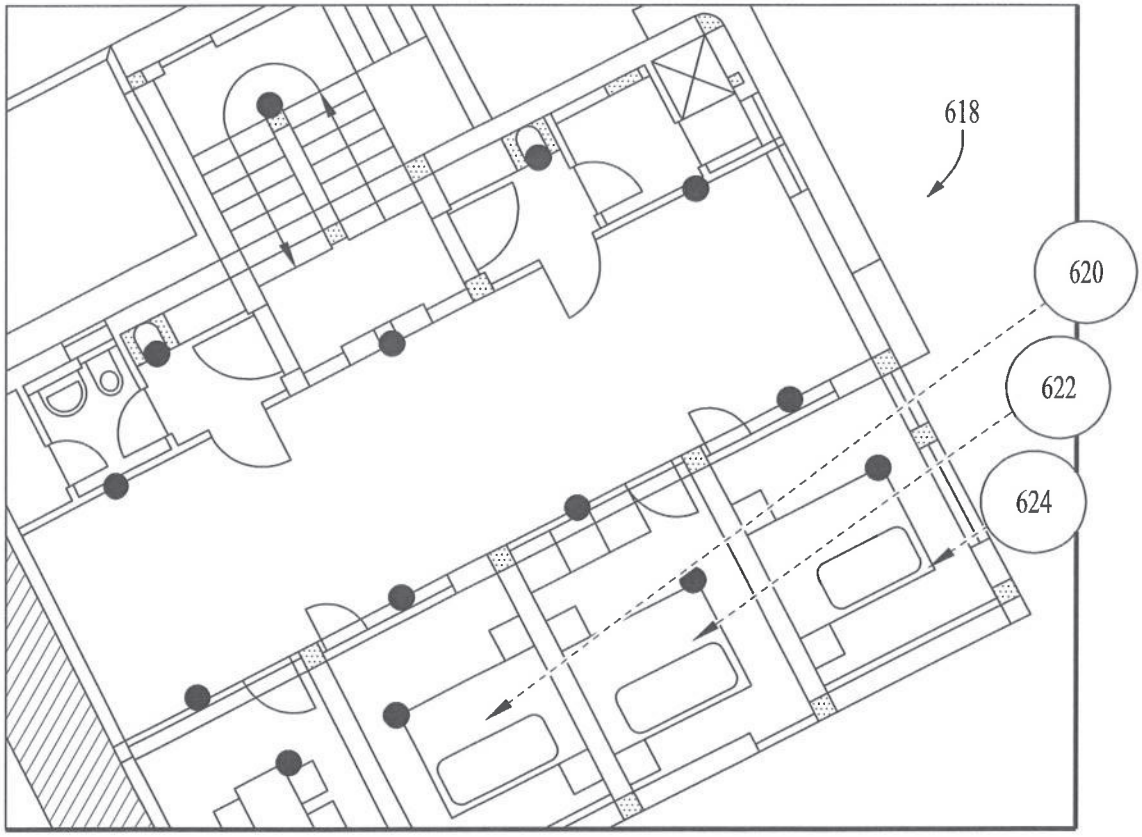


FIG. 26

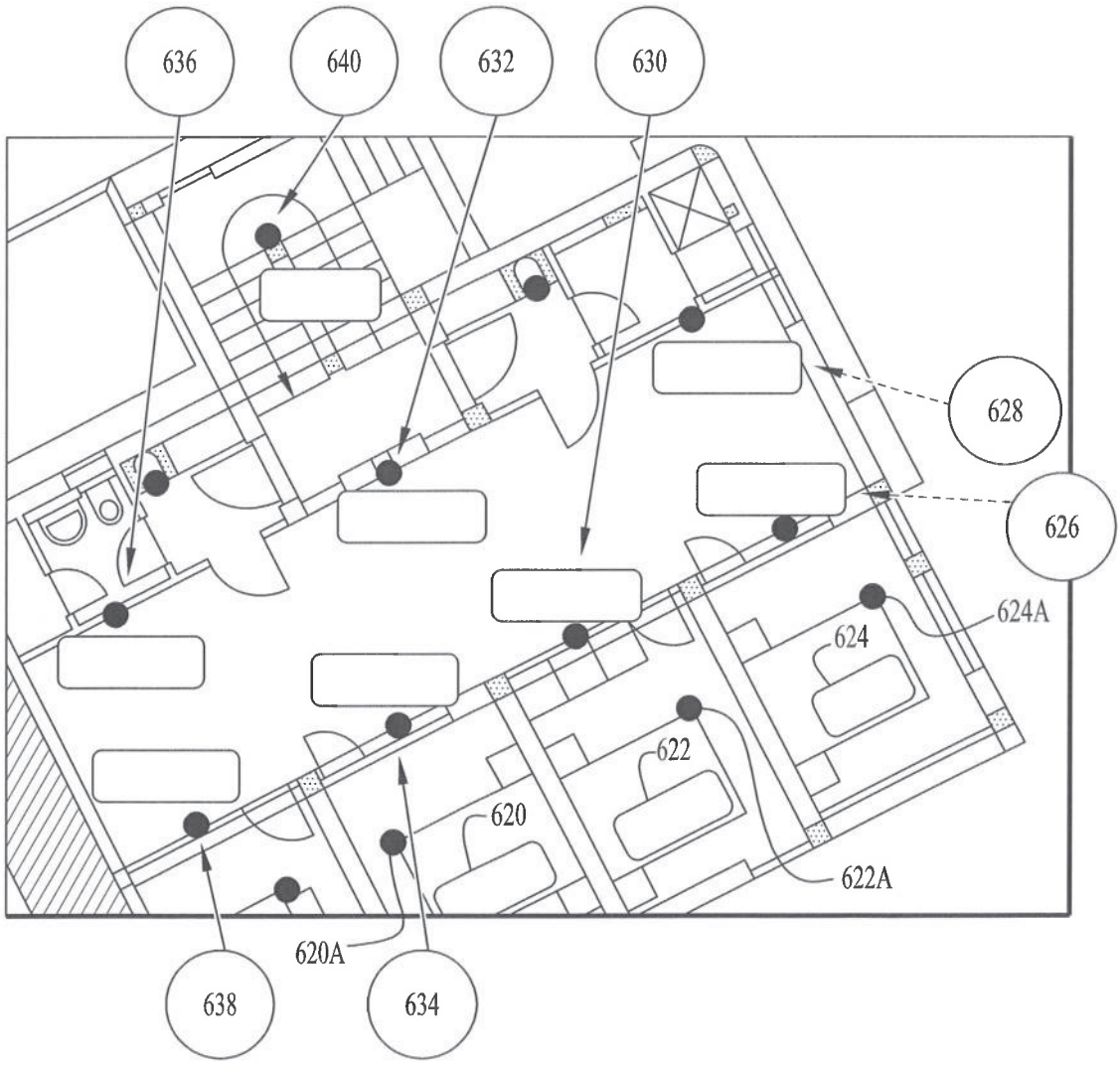


FIG. 27

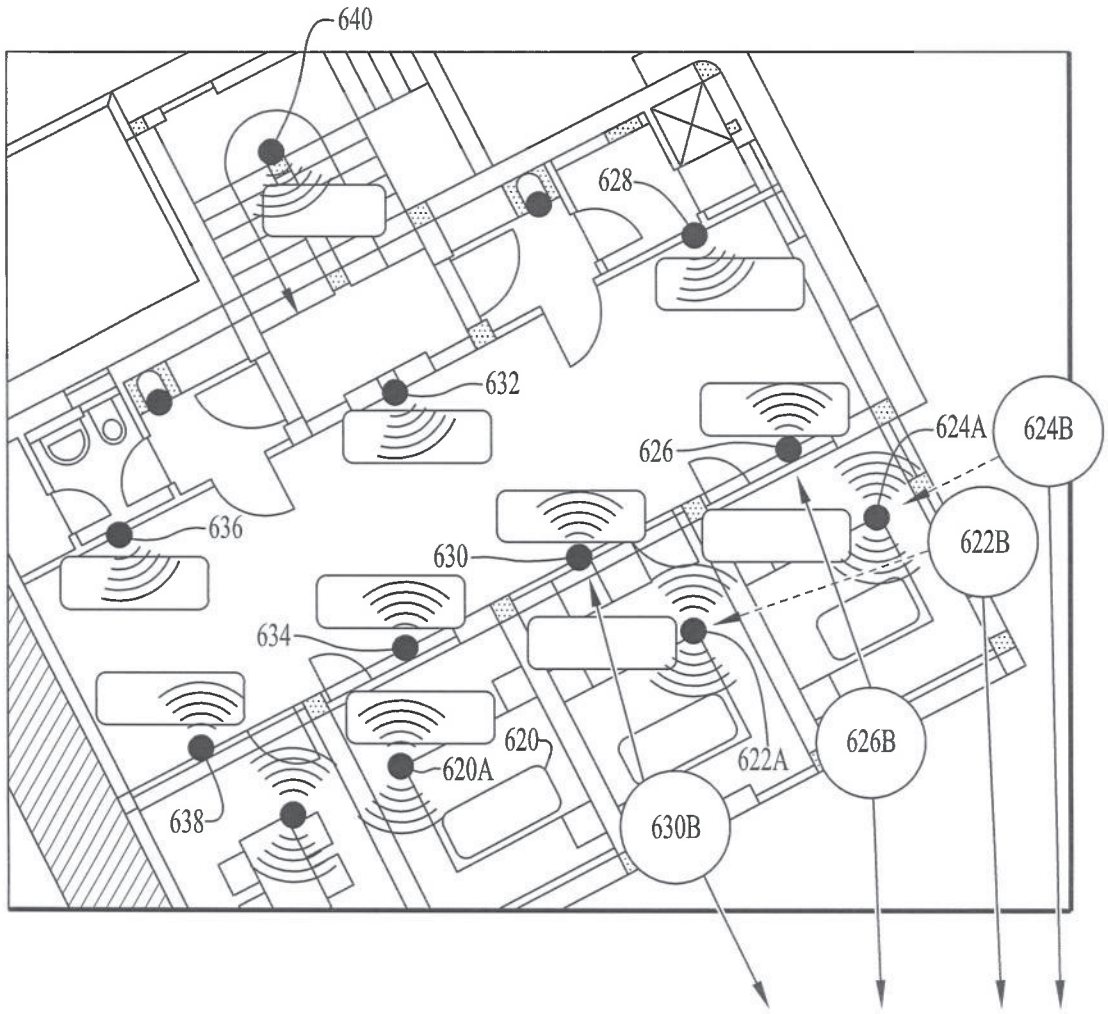
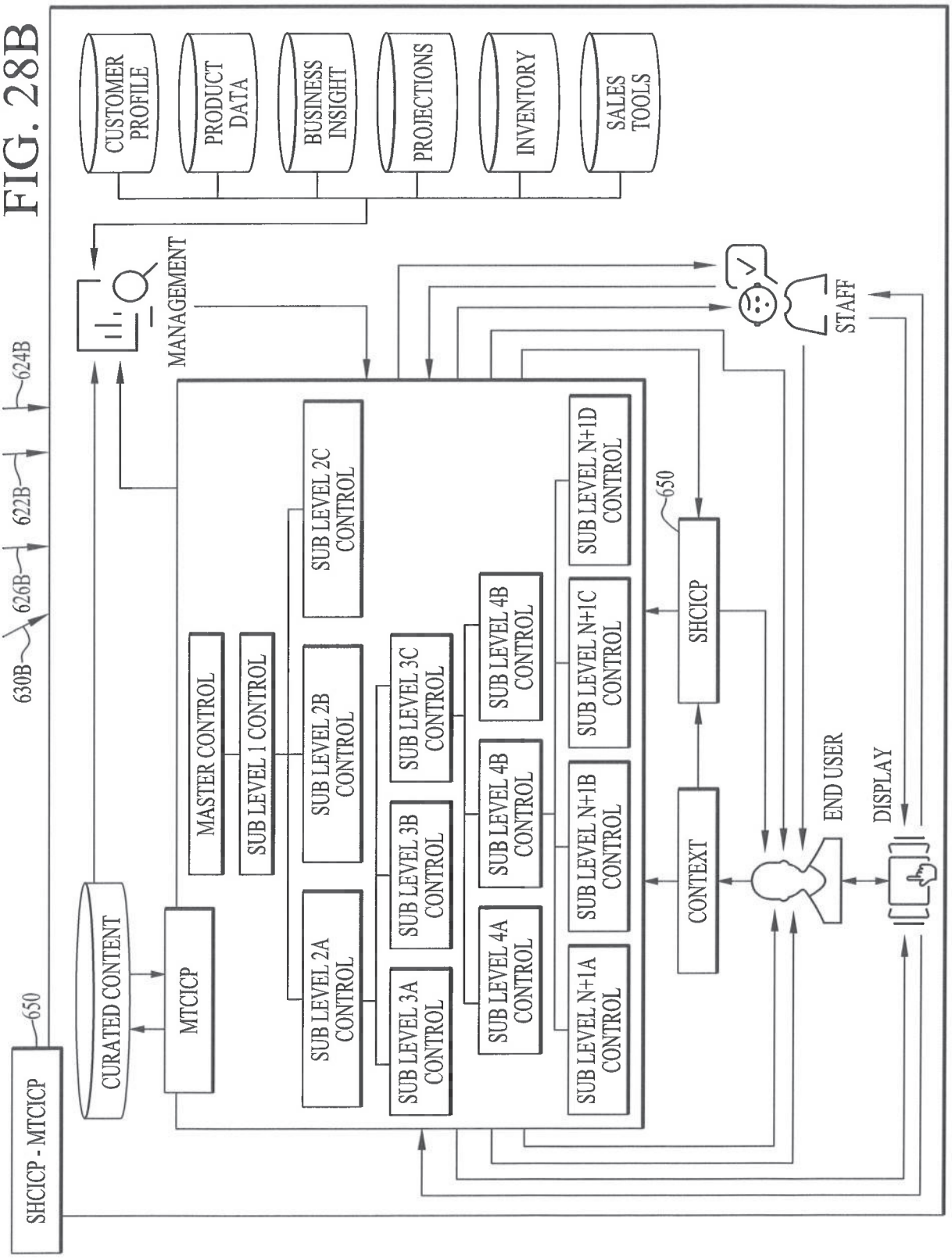


FIG. 28A

FIG. 28A
FIG. 28B

FIG. 28

FIG. 28B


SHCICP - MTCICP
650
630B
626B
622B
624B
CURATED CONTENT
MTCICP
MASTER CONTROL
SUB LEVEL 1 CONTROL
SUB LEVEL 2A CONTROL
SUB LEVEL 2B CONTROL
SUB LEVEL 2C CONTROL
SUB LEVEL 3A CONTROL
SUB LEVEL 3B CONTROL
SUB LEVEL 3C CONTROL
SUB LEVEL 4A CONTROL
SUB LEVEL 4B CONTROL
SUB LEVEL 4B CONTROL
SUB LEVEL N+1A CONTROL
SUB LEVEL N+1B CONTROL
SUB LEVEL N+1C CONTROL
SUB LEVEL N+1D CONTROL
650
SHCICP
CONTEXT
END USER
DISPLAY
STAFF
MANAGEMENT
CUSTOMER PROFILE
PRODUCT DATA
BUSINESS INSIGHT
PROJECTIONS
INVENTORY
SALES TOOLS

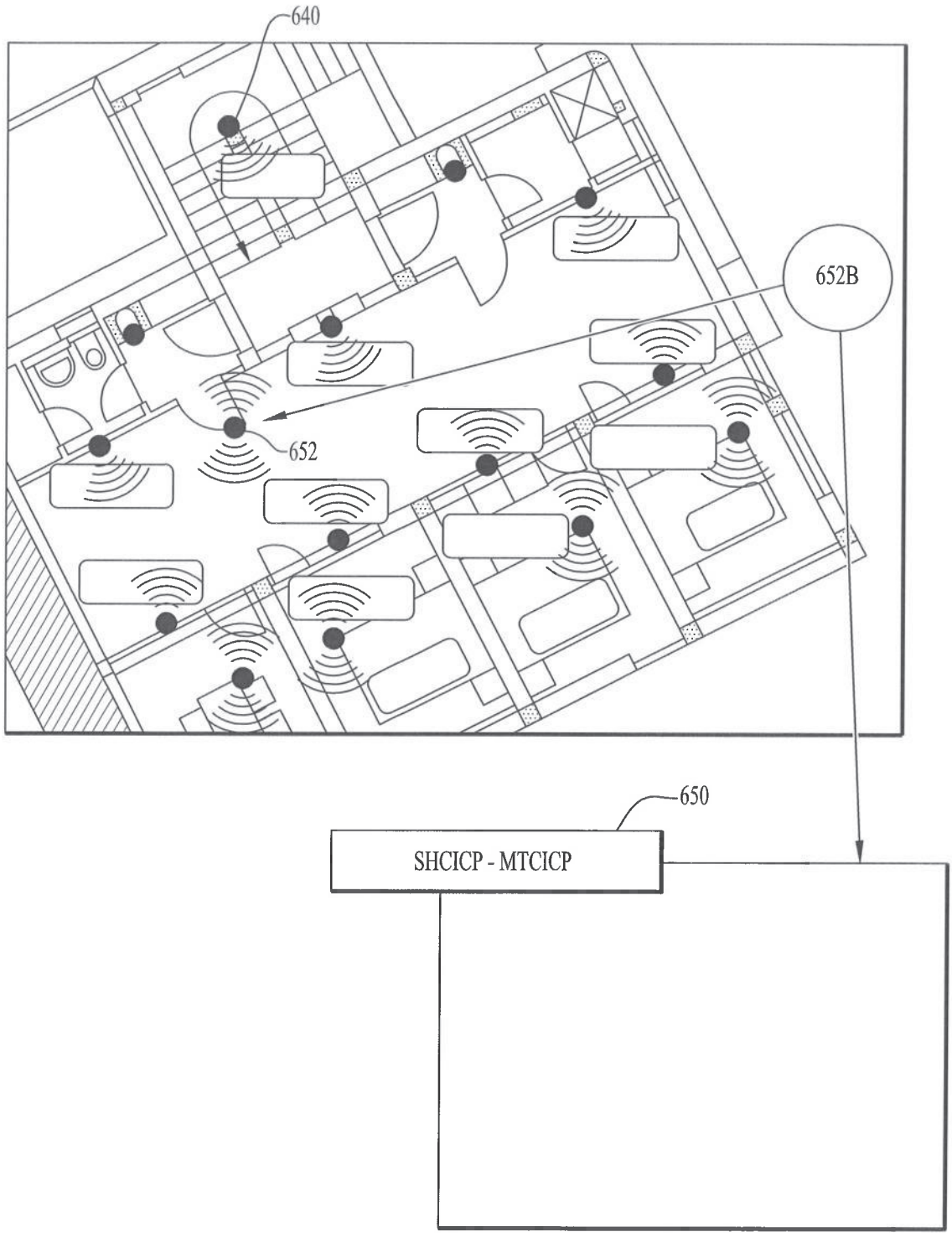


FIG. 29

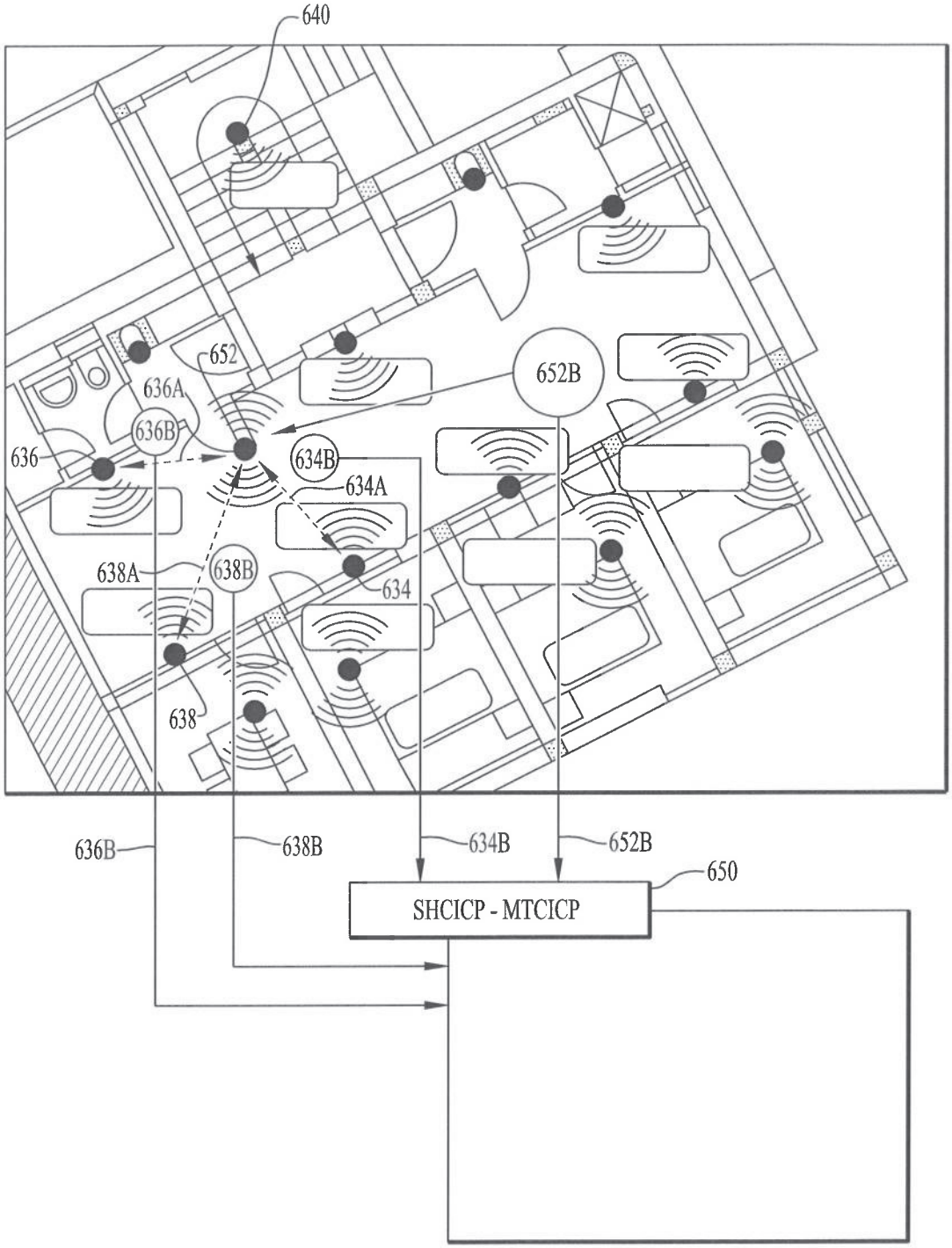

640
652
652B
636A
636B
636
634B
634A
638A
638B
634
638
636B
638B
634B
652B
650
SHCICP - MTCICP

FIG. 30

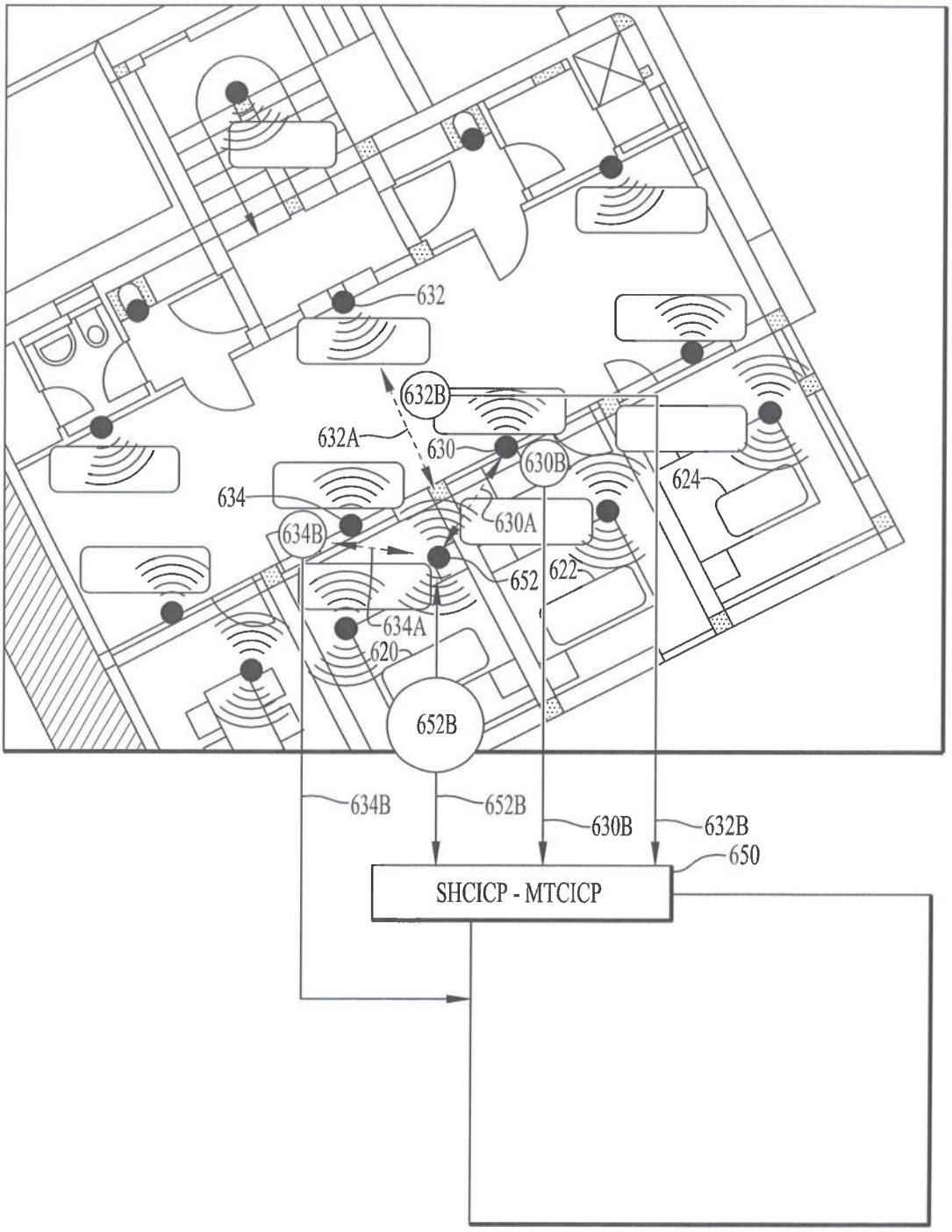

632
632B
632A
630
630B
624
634
634B
630A
622
652
634A
620
652B
634B
652B
630B
632B
650
SHCICP - MTCICP

FIG. 31

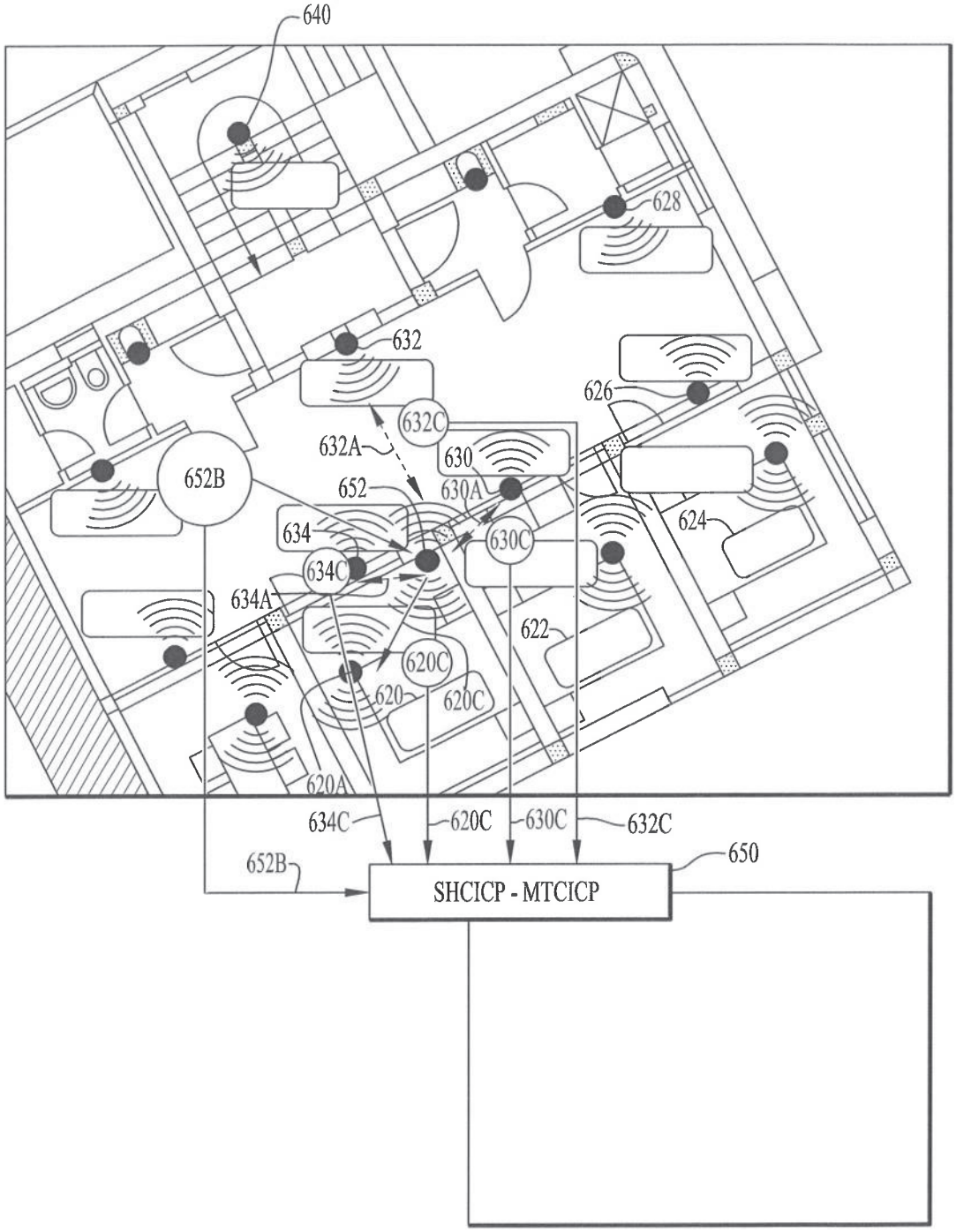

640
628
632
626
632C
632A
630
652B
652
630A
624
634
630C
634C
634A
622
620C
620
620C
620A
634C
620C
630C
632C
652B
650
SHCICP - MTCICP

FIG. 32

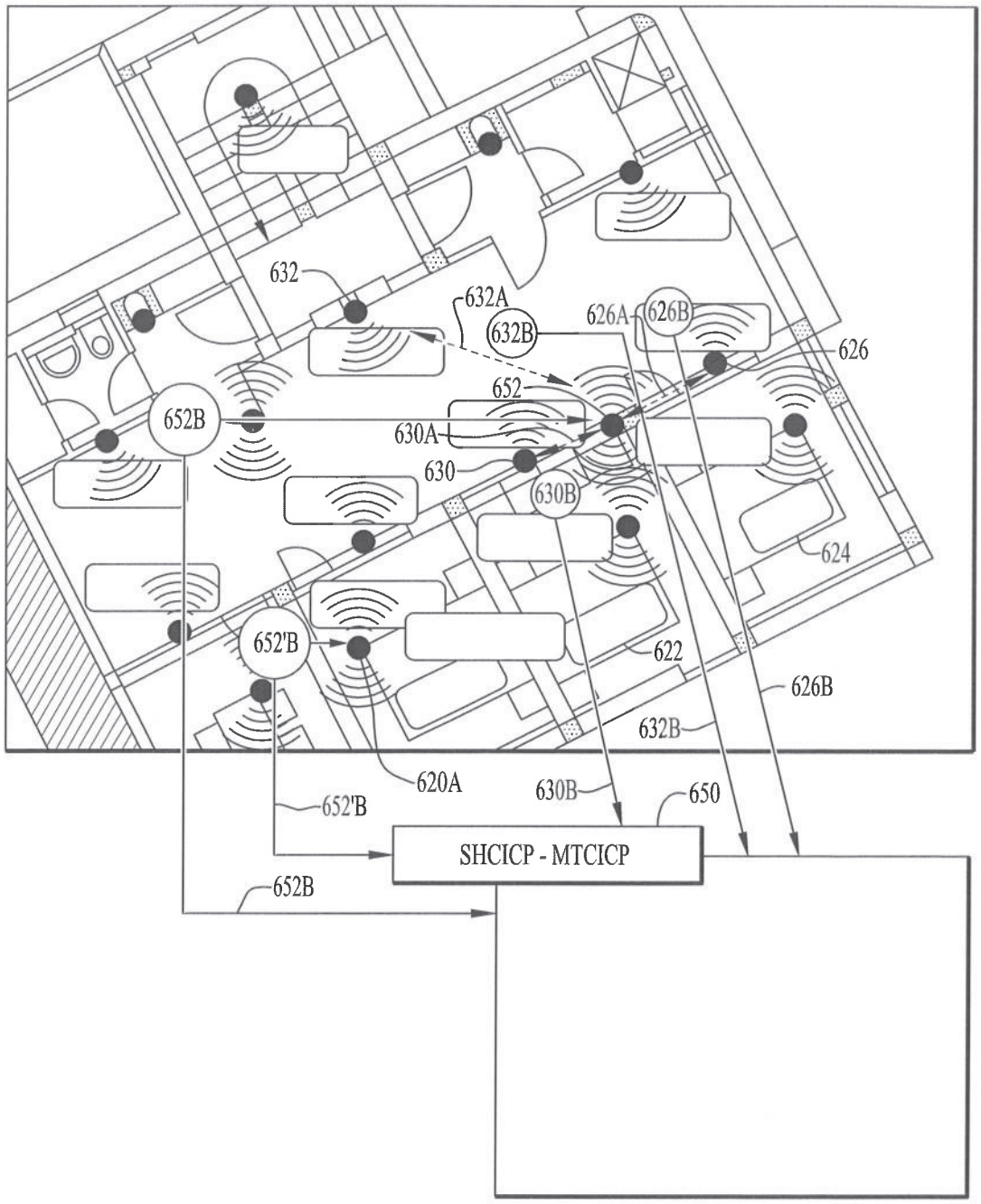

632
632A
632B
626A
626B
626
652
652B
630A
630
630B
624
652'B
622
626B
632B
620A
630B
650
652'B
SHCICP - MTCICP
652B

FIG. 33

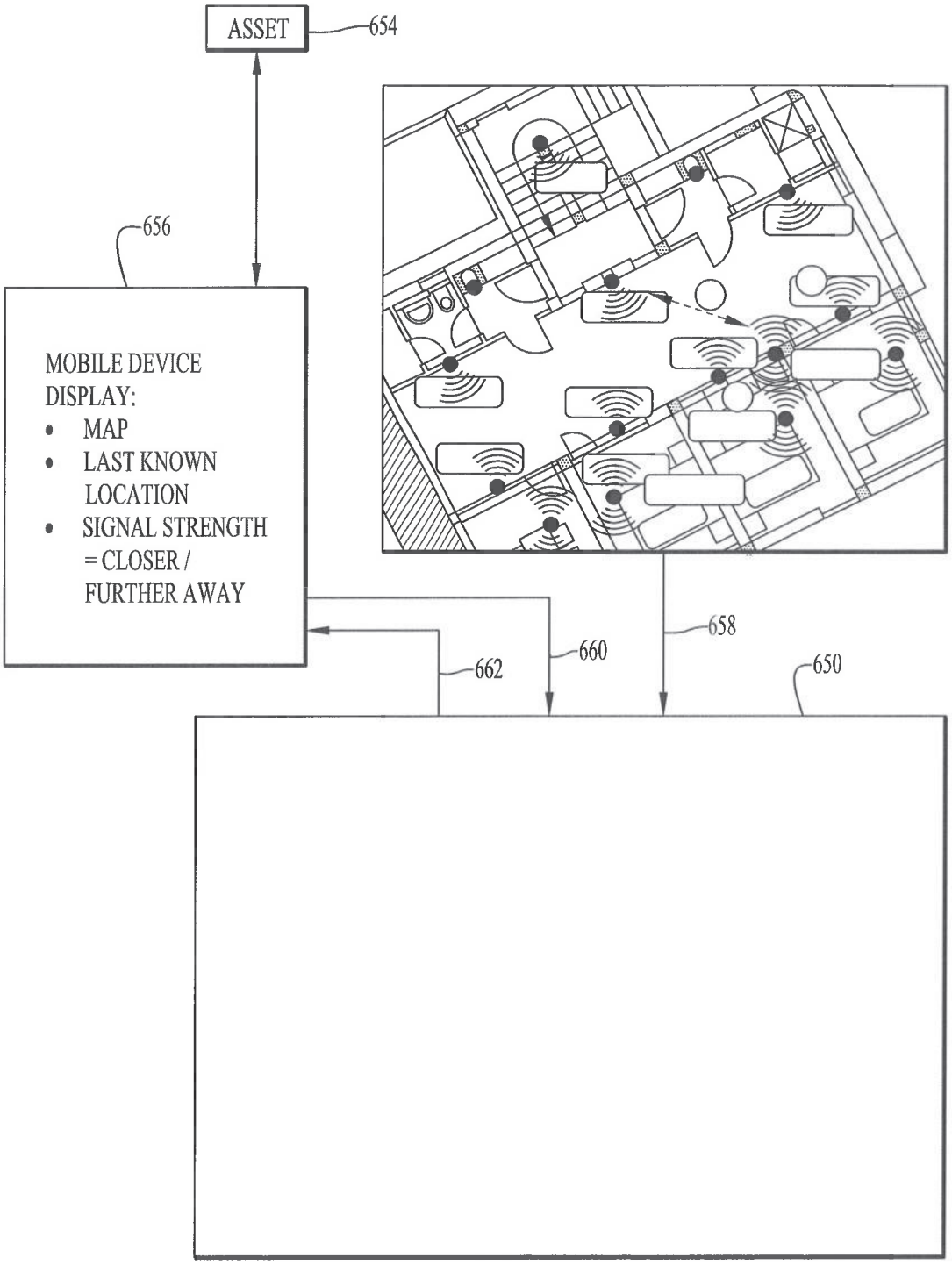

ASSET
654
656
MOBILE DEVICE
DISPLAY:
• MAP
• LAST KNOWN LOCATION
• SIGNAL STRENGTH = CLOSER / FURTHER AWAY
658
660
662
650

FIG. 34

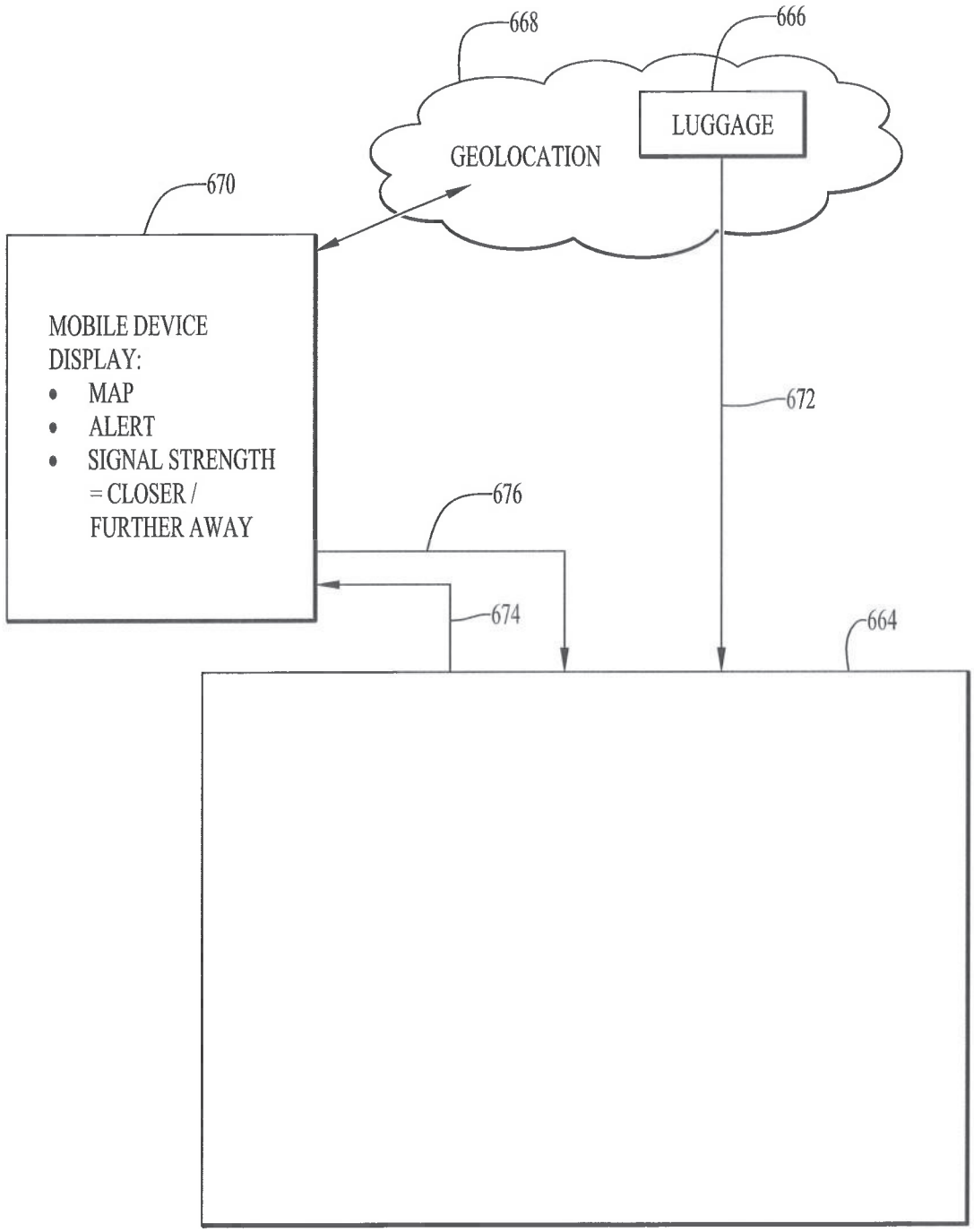

668
666
LUGGAGE
GEOLOCATION
670
MOBILE DEVICE
DISPLAY:
• MAP
• ALERT
• SIGNAL STRENGTH
= CLOSER /
FURTHER AWAY
672
676
674
664

FIG. 35

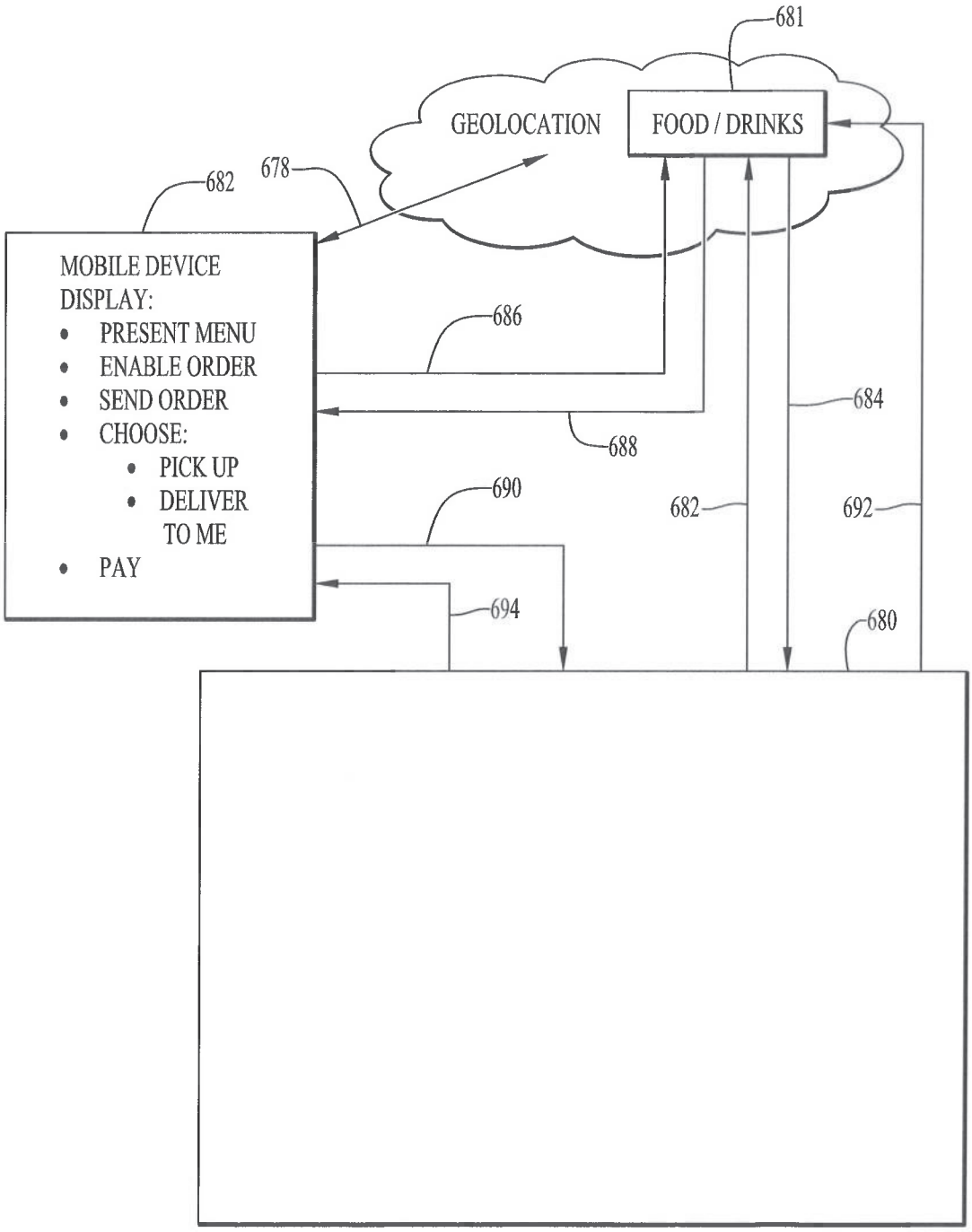

681
GEOLOCATION
FOOD / DRINKS
678
682
MOBILE DEVICE
DISPLAY:
• PRESENT MENU
• ENABLE ORDER
• SEND ORDER
• CHOOSE:
• PICK UP
• DELIVER TO ME
• PAY
686
684
688
690
682
692
694
680

FIG. 36

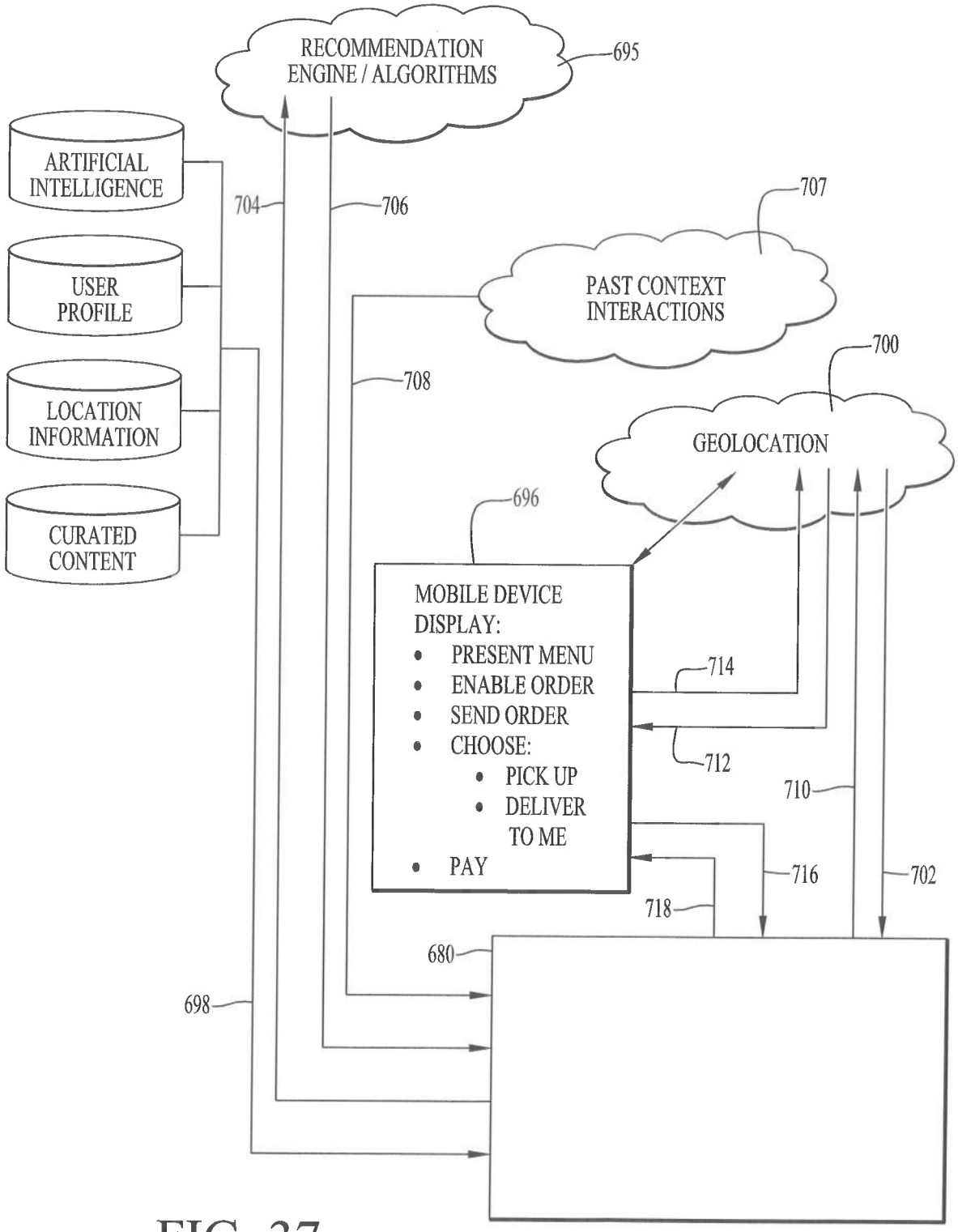

RECOMMENDATION ENGINE / ALGORITHMS
695
ARTIFICIAL INTELLIGENCE
USER PROFILE
LOCATION INFORMATION
CURATED CONTENT
704
706
707
PAST CONTEXT INTERACTIONS
708
700
GEOLOCATION
696
MOBILE DEVICE DISPLAY:
• PRESENT MENU
• ENABLE ORDER
• SEND ORDER
• CHOOSE:
• PICK UP
• DELIVER TO ME
• PAY
714
712
710
716
702
718
680
698

FIG. 37

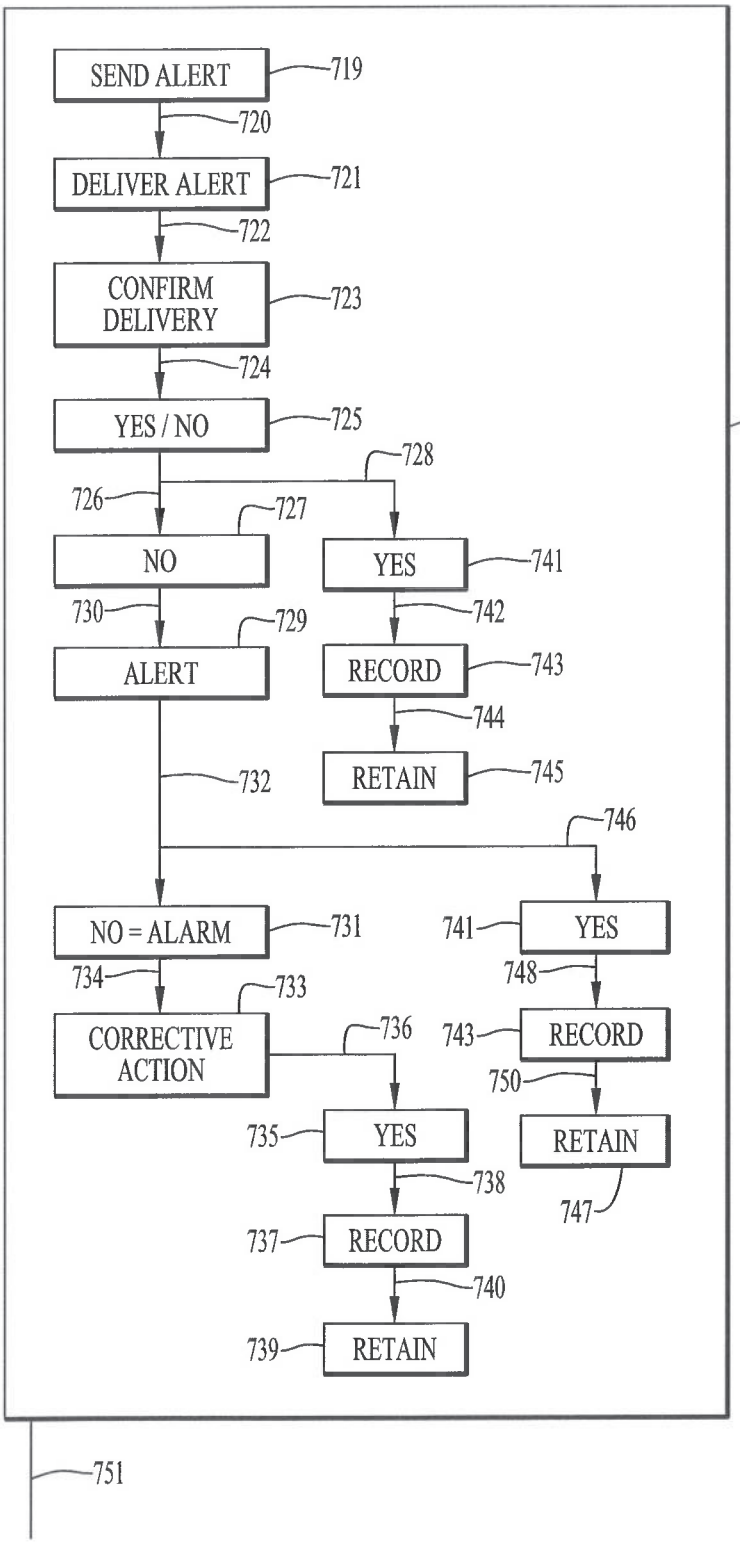


FIG. 38A

FIG. 38A

FIG. 38B

FIG. 38

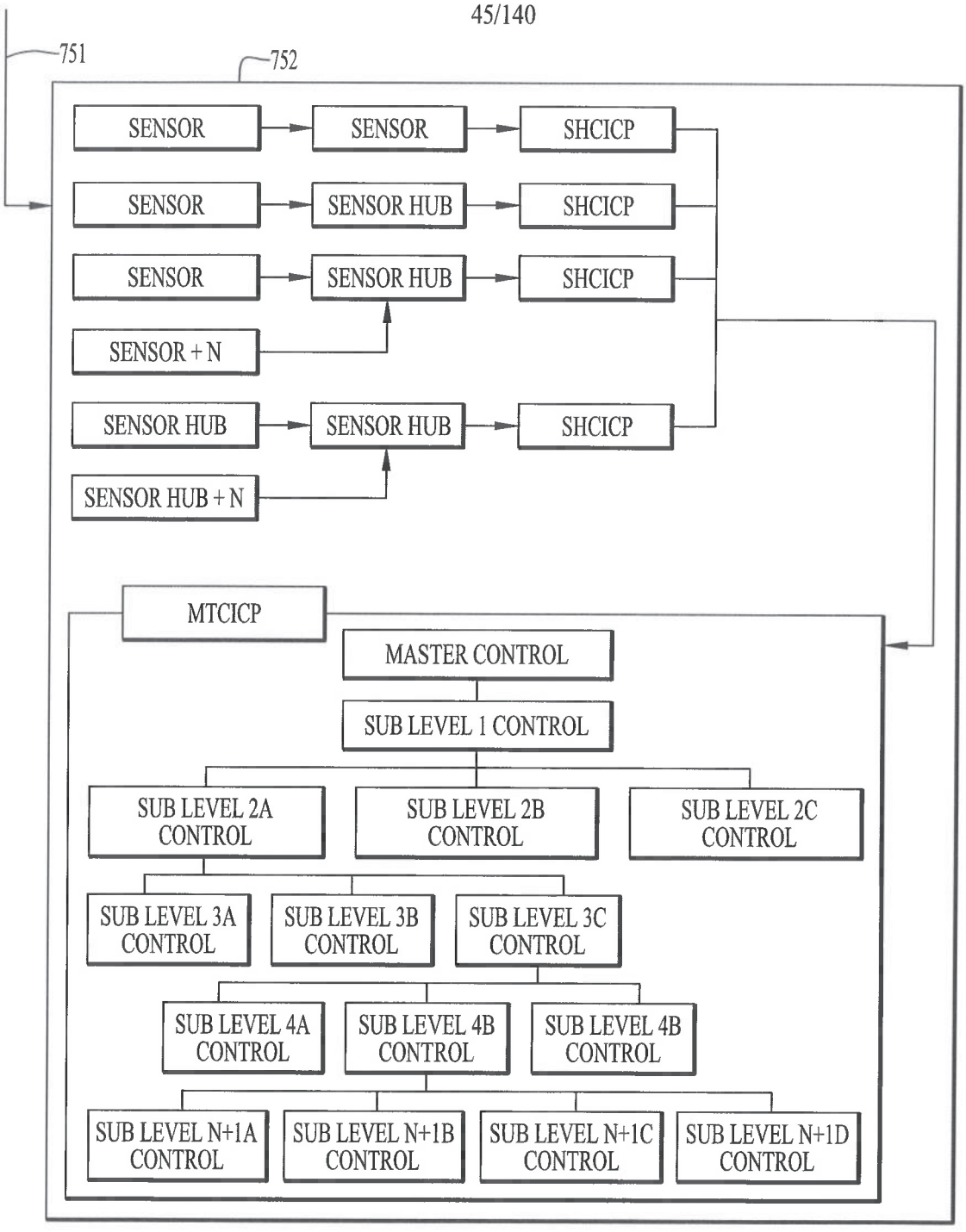

751
752
SENSOR
SENSOR
SHCICP
SENSOR
SENSOR HUB
SHCICP
SENSOR
SENSOR HUB
SHCICP
SENSOR + N
SENSOR HUB
SENSOR HUB
SHCICP
SENSOR HUB + N
MTCICP
MASTER CONTROL
SUB LEVEL 1 CONTROL
SUB LEVEL 2A CONTROL
SUB LEVEL 2B CONTROL
SUB LEVEL 2C CONTROL
SUB LEVEL 3A CONTROL
SUB LEVEL 3B CONTROL
SUB LEVEL 3C CONTROL
SUB LEVEL 4A CONTROL
SUB LEVEL 4B CONTROL
SUB LEVEL 4B CONTROL
SUB LEVEL N+1A CONTROL
SUB LEVEL N+1B CONTROL
SUB LEVEL N+1C CONTROL
SUB LEVEL N+1D CONTROL

FIG. 38B

FIG. 39A

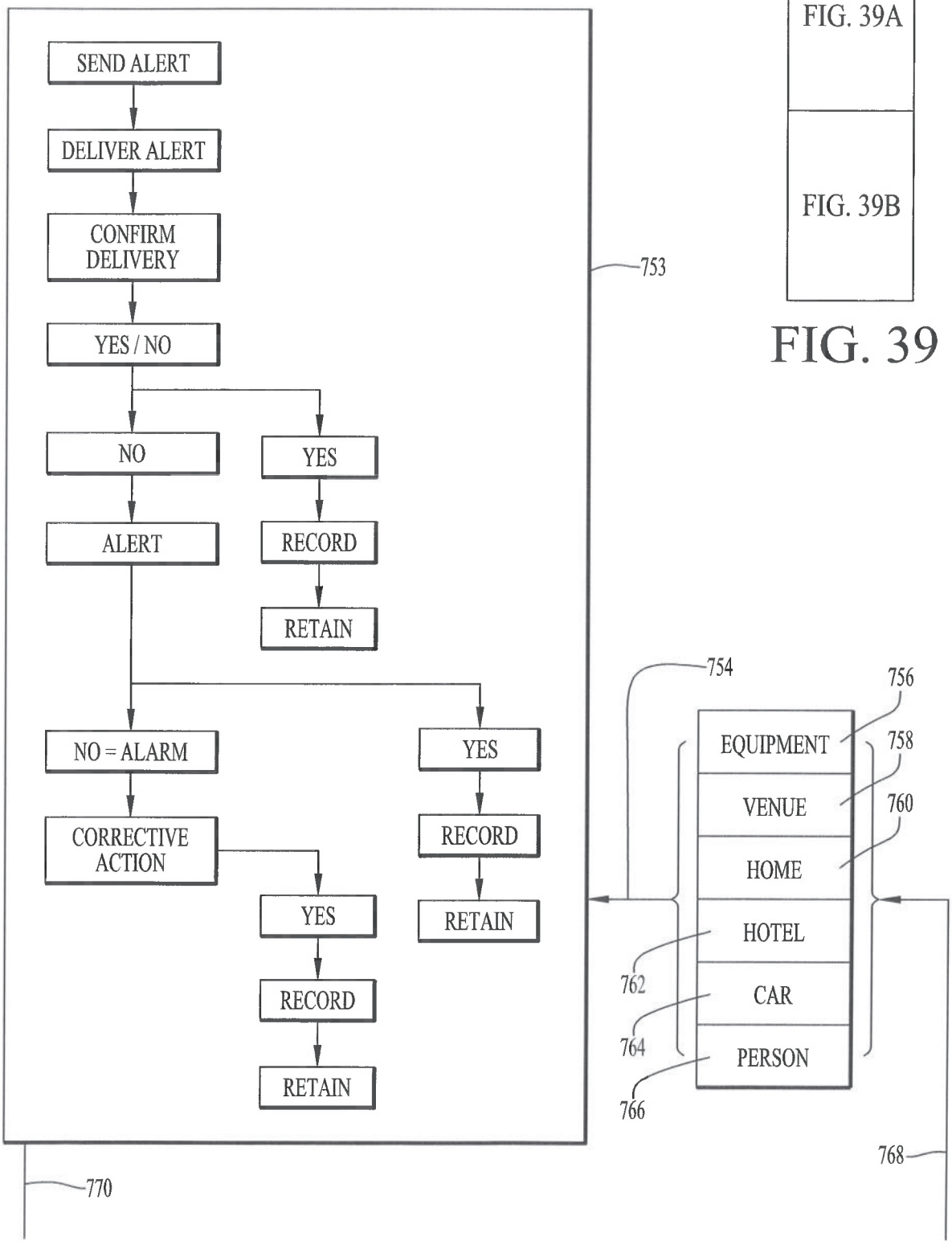


FIG. 39

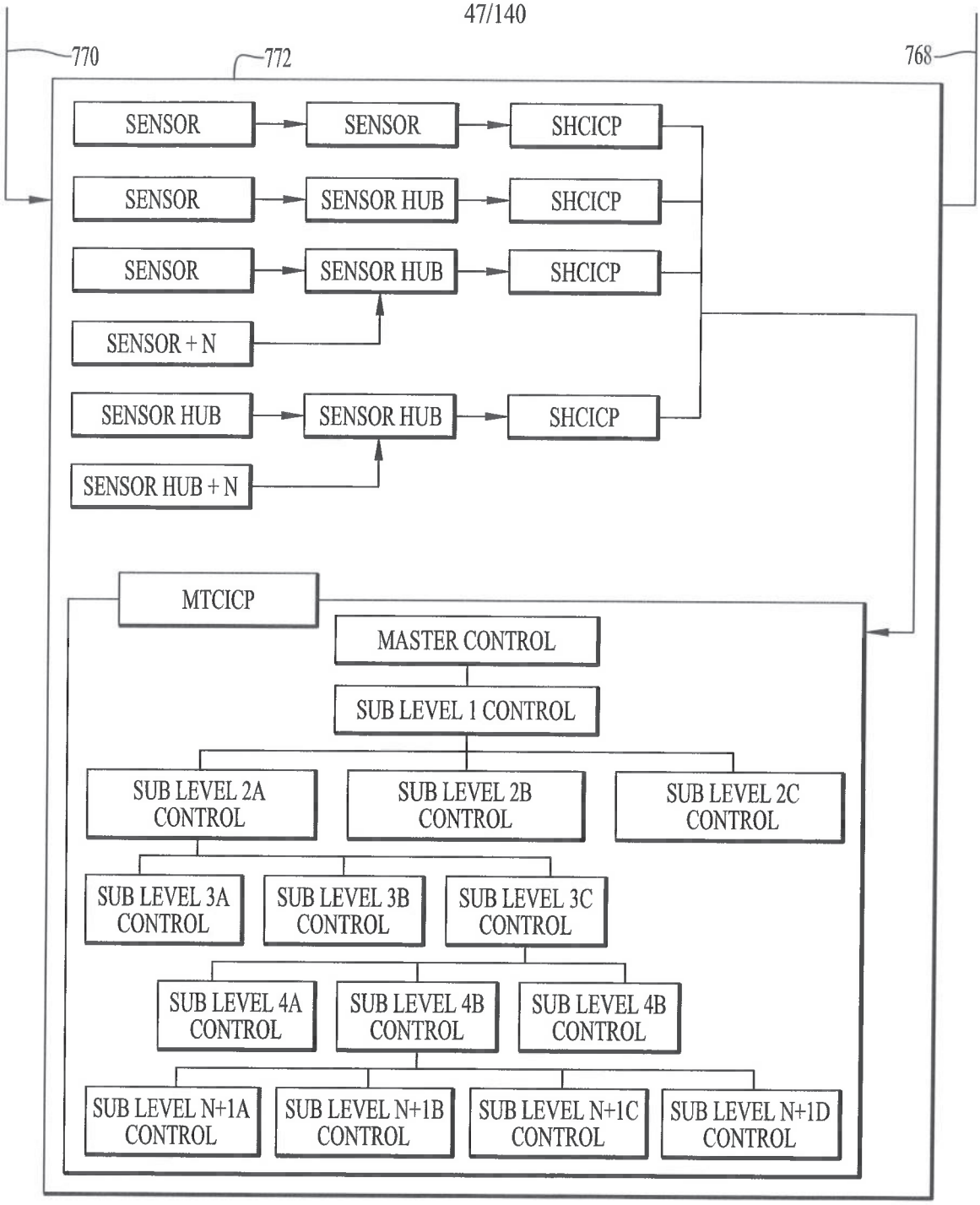

770
772
768
SENSOR
SENSOR
SHCICP
SENSOR
SENSOR HUB
SHCICP
SENSOR
SENSOR HUB
SHCICP
SENSOR + N
SENSOR HUB
SENSOR HUB
SHCICP
SENSOR HUB + N
MTCICP
MASTER CONTROL
SUB LEVEL 1 CONTROL
SUB LEVEL 2A CONTROL
SUB LEVEL 2B CONTROL
SUB LEVEL 2C CONTROL
SUB LEVEL 3A CONTROL
SUB LEVEL 3B CONTROL
SUB LEVEL 3C CONTROL
SUB LEVEL 4A CONTROL
SUB LEVEL 4B CONTROL
SUB LEVEL 4B CONTROL
SUB LEVEL N+1A CONTROL
SUB LEVEL N+1B CONTROL
SUB LEVEL N+1C CONTROL
SUB LEVEL N+1D CONTROL

FIG. 39B

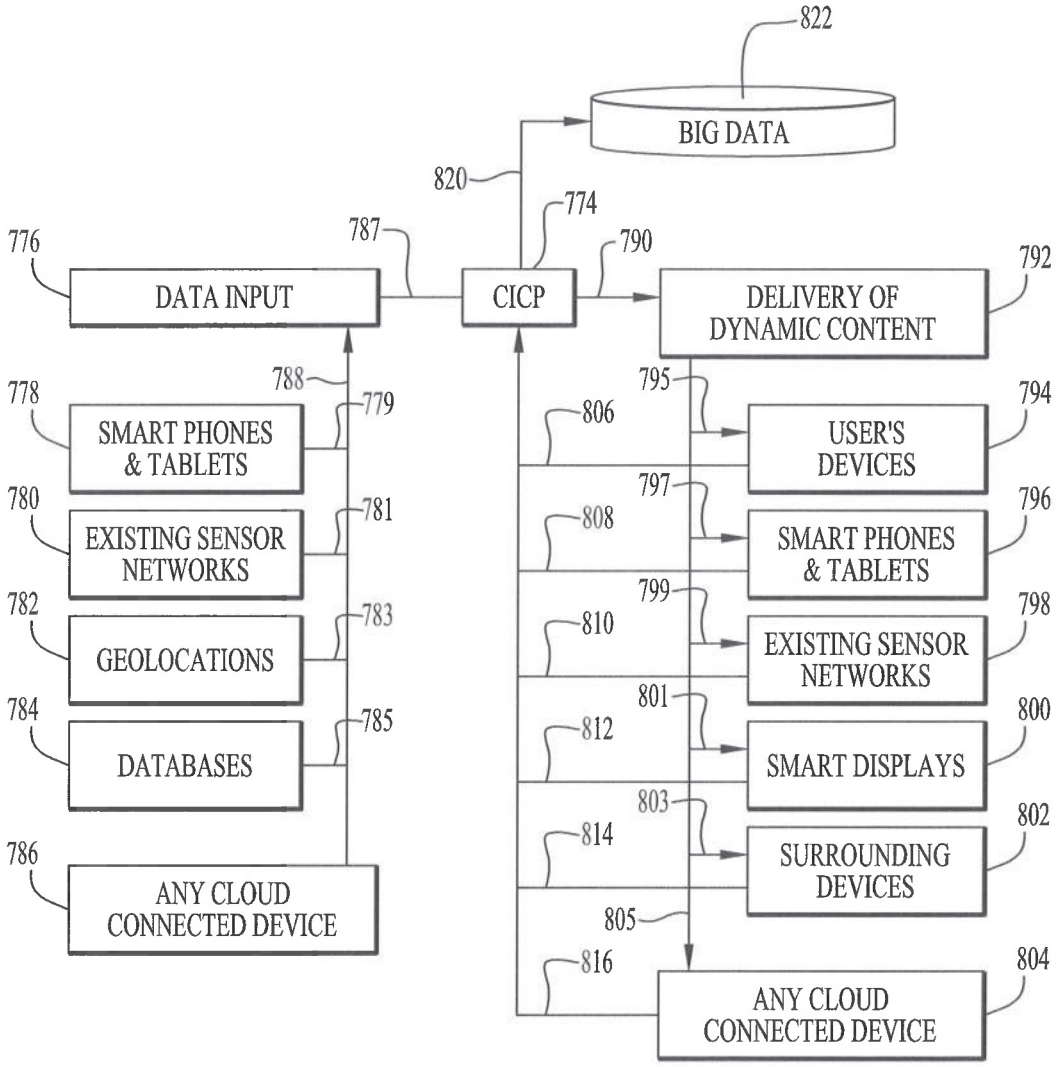

822
BIG DATA
820
774
787
790
776
DATA INPUT
CICP
DELIVERY OF DYNAMIC CONTENT
792
788
795
778
779
806
794
SMART PHONES & TABLETS
USER'S DEVICES
797
780
781
808
796
EXISTING SENSOR NETWORKS
SMART PHONES & TABLETS
799
782
783
810
798
GEOLOCATIONS
EXISTING SENSOR NETWORKS
801
784
785
812
800
DATABASES
SMART DISPLAYS
803
814
802
SURROUNDING DEVICES
786
805
816
804
ANY CLOUD CONNECTED DEVICE
ANY CLOUD CONNECTED DEVICE

FIG. 40

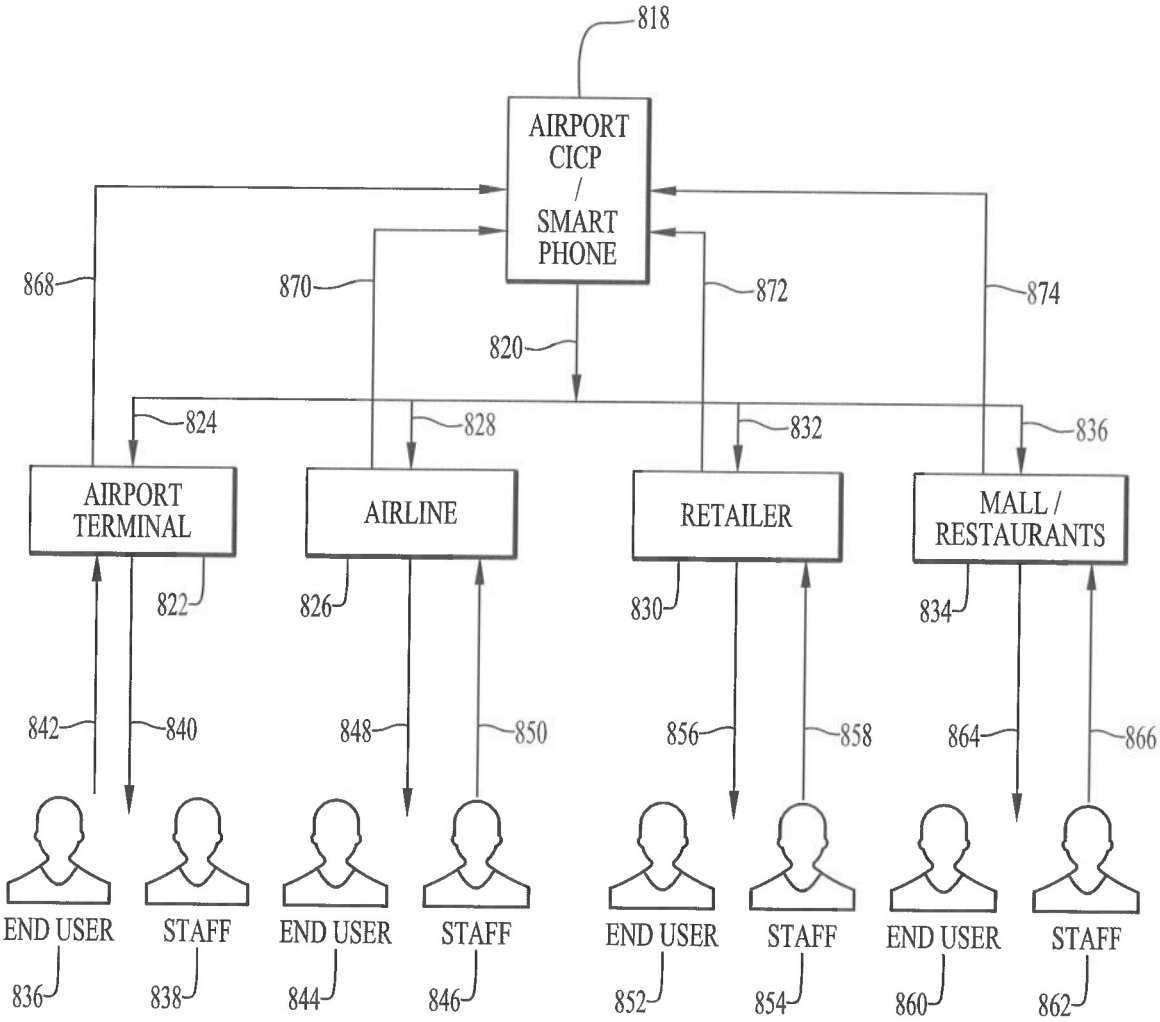

818
AIRPORT CICP / SMART PHONE
868
870
872
874
820
824
828
832
836
AIRPORT TERMINAL
AIRLINE
RETAILER
MALL / RESTAURANTS
822
826
830
834
842
840
848
850
856
858
864
866
END USER
STAFF
END USER
STAFF
END USER
STAFF
END USER
STAFF
836
838
844
846
852
854
860
862

FIG. 41

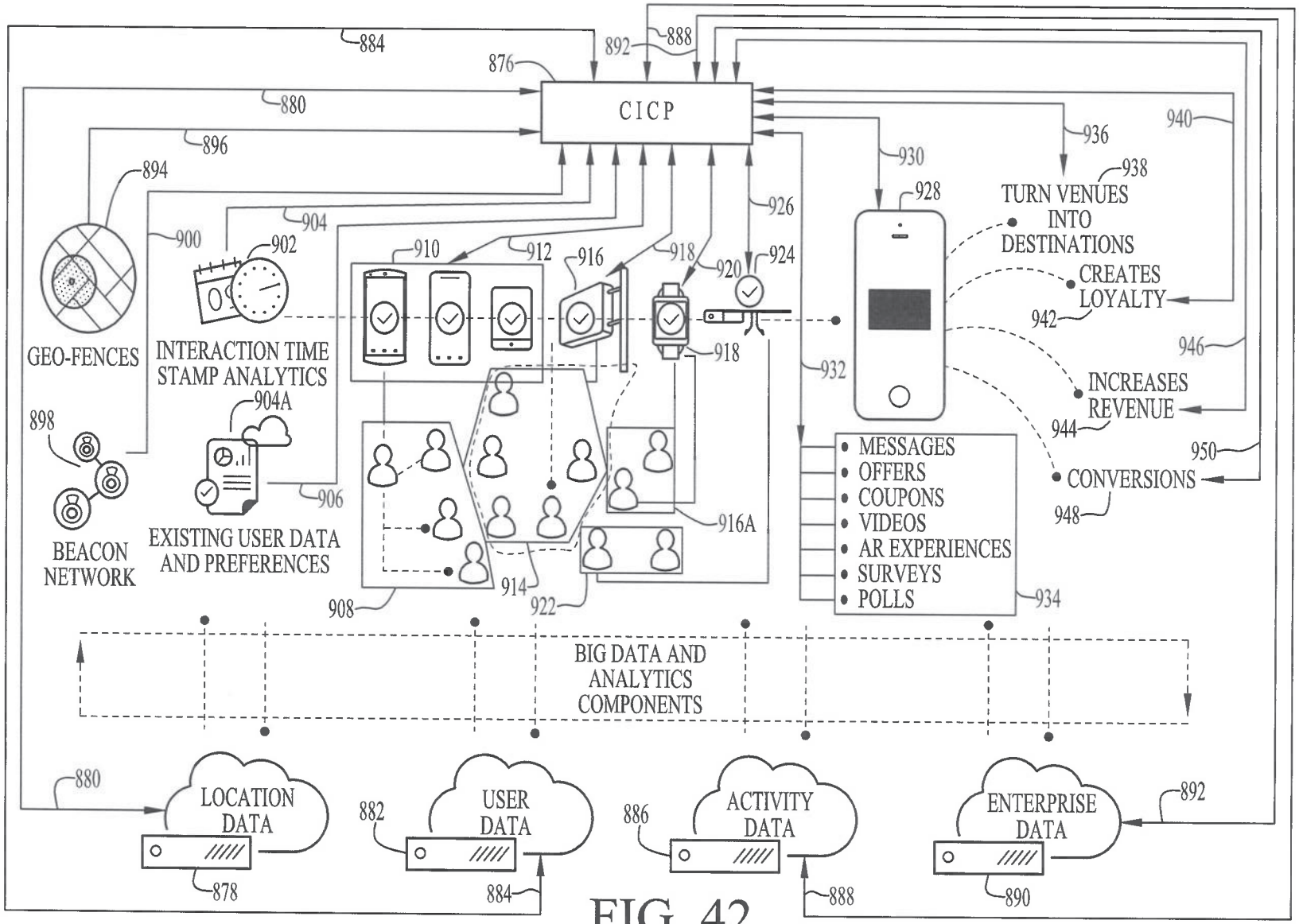

884
892
888
876
CICP
880
896
894
904
900
902
910
912
916
918
920
924
926
930
936
940
928
938
TURN VENUES INTO DESTINATIONS
CREATES LOYALTY
942
946
INCREASES REVENUE
944
950
CONVERSIONS
948
GEO-FENCES
INTERACTION TIME STAMP ANALYTICS
904A
898
906
BEACON NETWORK
EXISTING USER DATA AND PREFERENCES
908
914
922
916A
932
MESSAGES
OFFERS
COUPONS
VIDEOS
AR EXPERIENCES
SURVEYS
POLLS
934
BIG DATA AND ANALYTICS COMPONENTS
880
LOCATION DATA
878
882
USER DATA
884
886
ACTIVITY DATA
888
ENTERPRISE DATA
892
890

FIG. 42

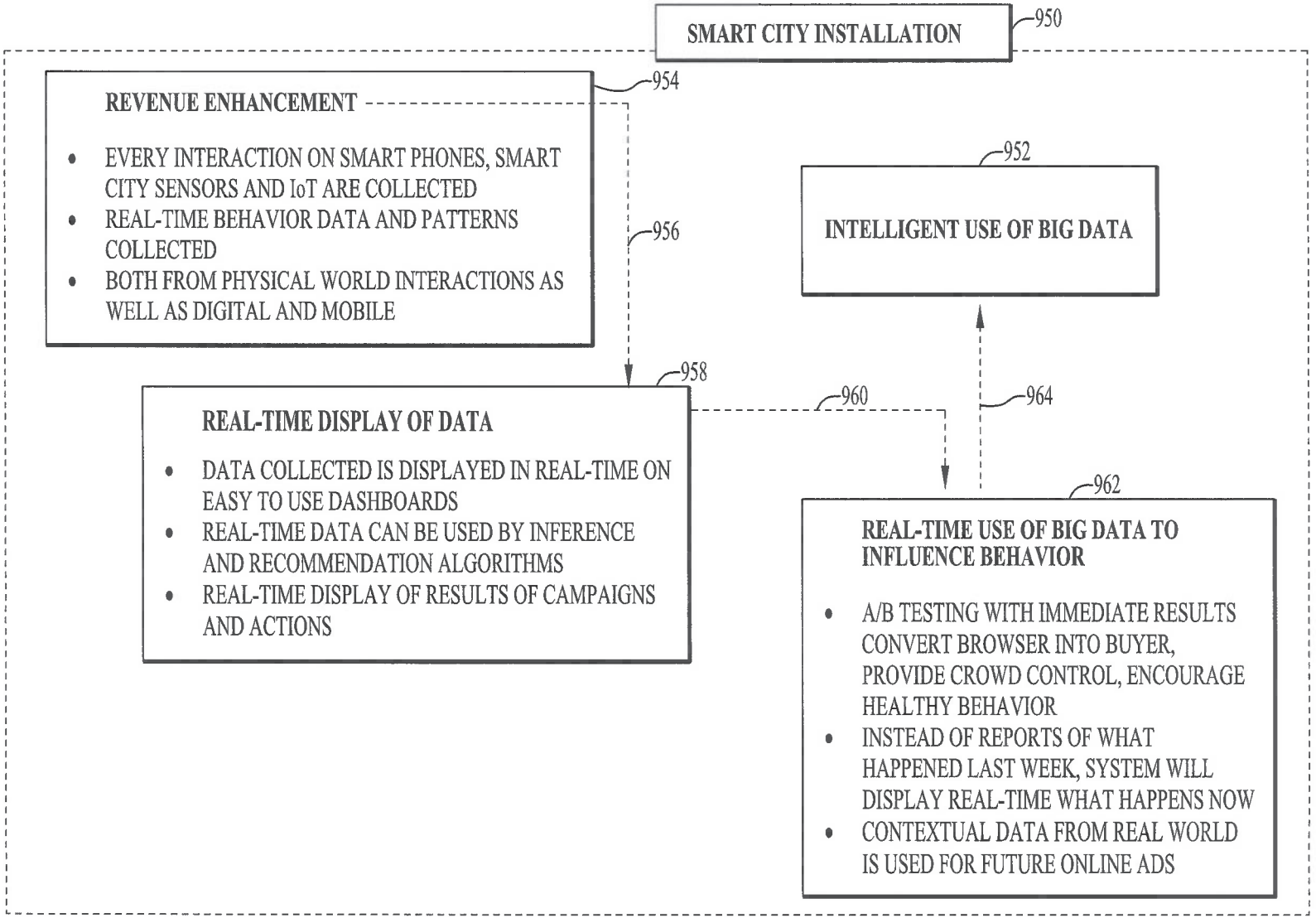

SMART CITY INSTALLATION
950
REVENUE ENHANCEMENT
954
• EVERY INTERACTION ON SMART PHONES, SMART CITY SENSORS AND IoT ARE COLLECTED
• REAL-TIME BEHAVIOR DATA AND PATTERNS COLLECTED
• BOTH FROM PHYSICAL WORLD INTERACTIONS AS WELL AS DIGITAL AND MOBILE
952
INTELLIGENT USE OF BIG DATA
956
958
960
964
REAL-TIME DISPLAY OF DATA
• DATA COLLECTED IS DISPLAYED IN REAL-TIME ON EASY TO USE DASHBOARDS
• REAL-TIME DATA CAN BE USED BY INFERENCE AND RECOMMENDATION ALGORITHMS
• REAL-TIME DISPLAY OF RESULTS OF CAMPAIGNS AND ACTIONS
962
REAL-TIME USE OF BIG DATA TO INFLUENCE BEHAVIOR
• A/B TESTING WITH IMMEDIATE RESULTS CONVERT BROWSER INTO BUYER, PROVIDE CROWD CONTROL, ENCOURAGE HEALTHY BEHAVIOR
• INSTEAD OF REPORTS OF WHAT HAPPENED LAST WEEK, SYSTEM WILL DISPLAY REAL-TIME WHAT HAPPENS NOW
• CONTEXTUAL DATA FROM REAL WORLD IS USED FOR FUTURE ONLINE ADS

FIG. 43

FIG. 44A	FIG. 44B	FIG. 44C

FIG. 44

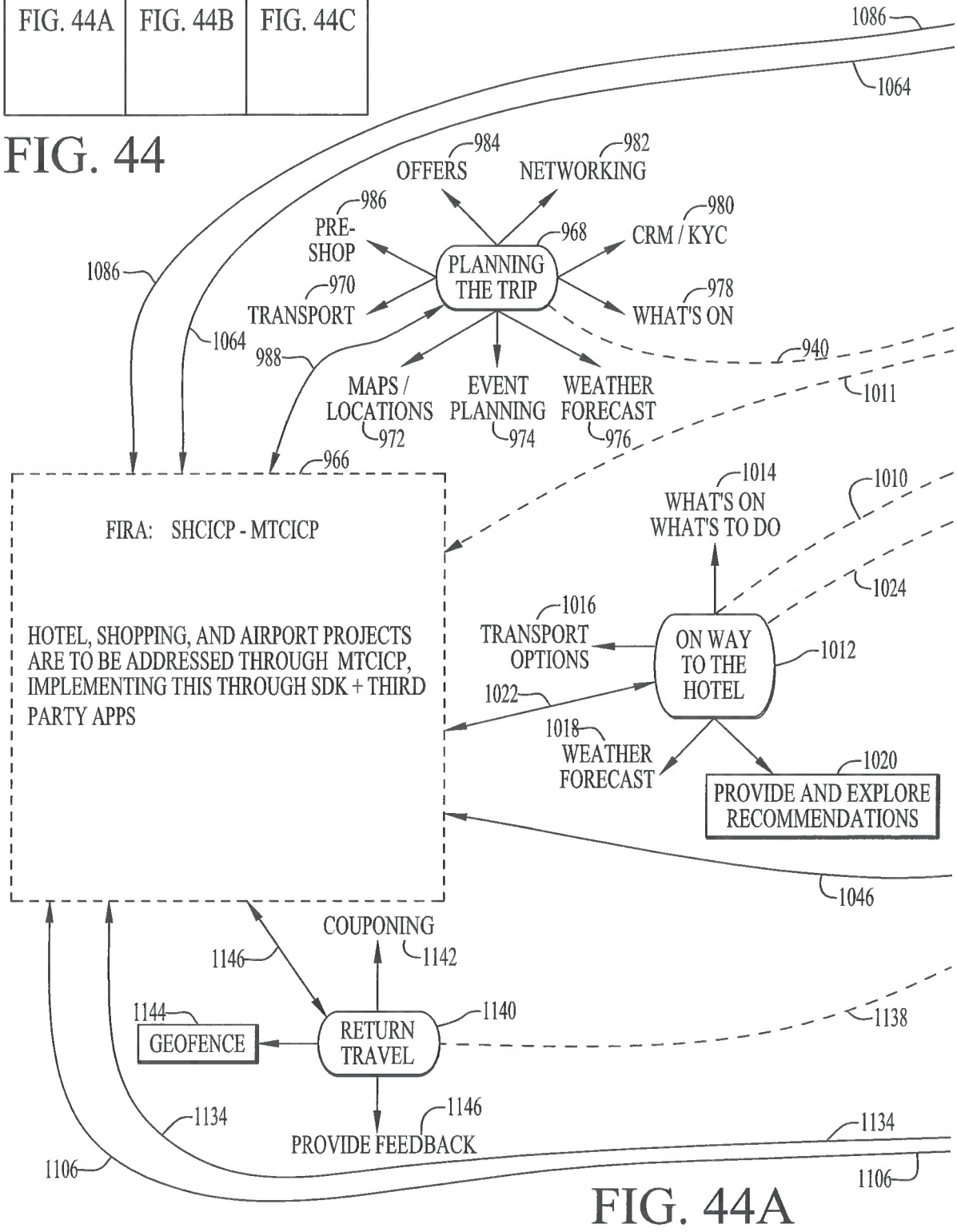


FIG. 44A

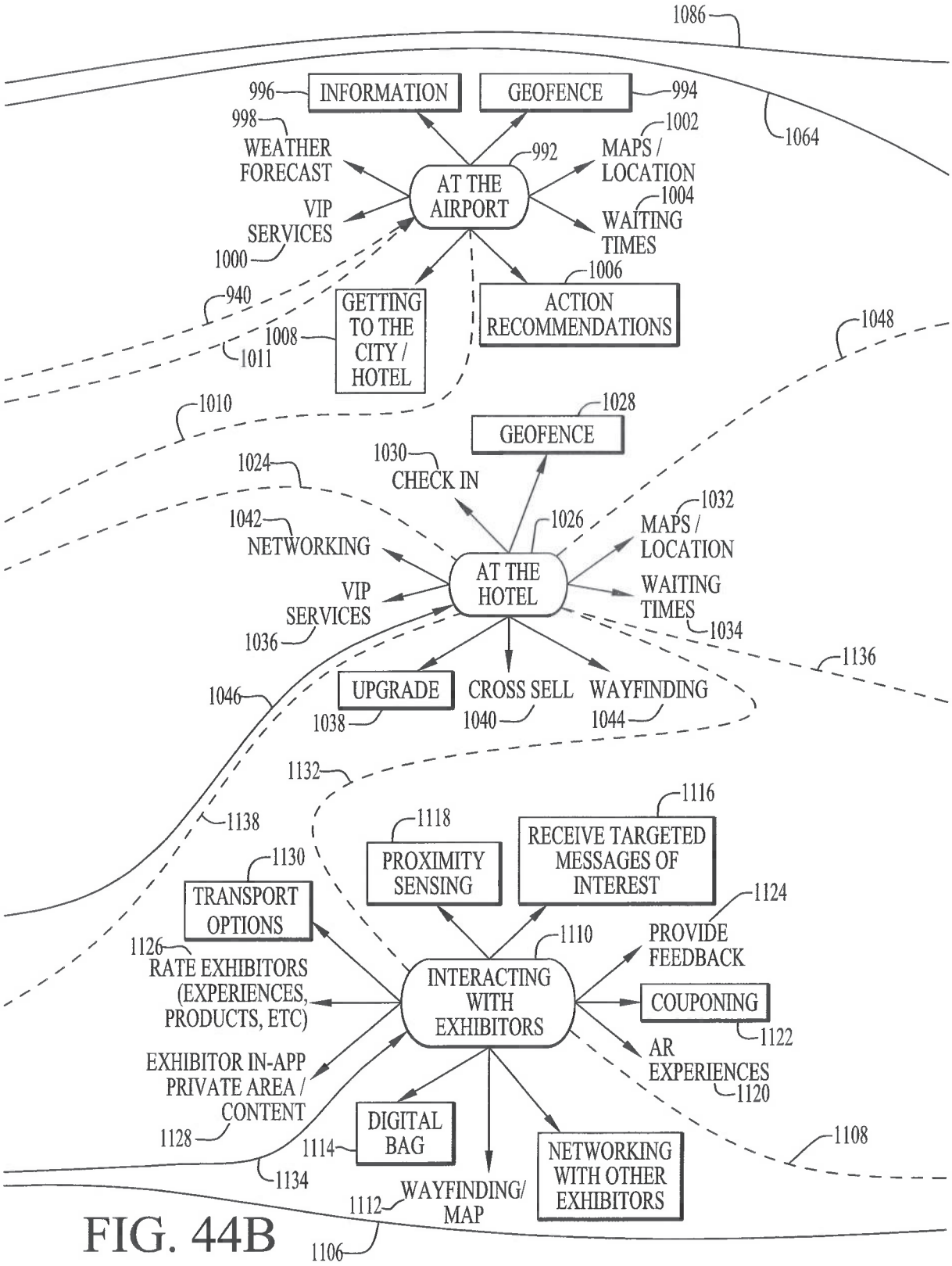

1086
1064
996
INFORMATION
GEOFENCE
994
998
WEATHER FORECAST
1002
MAPS / LOCATION
992
AT THE AIRPORT
VIP SERVICES
1004
WAITING TIMES
1000
1006
940
GETTING TO THE CITY / HOTEL
ACTION RECOMMENDATIONS
1008
1011
1048
1010
1028
GEOFENCE
1030
CHECK IN
1024
1042
NETWORKING
1026
1032
MAPS / LOCATION
AT THE HOTEL
VIP SERVICES
WAITING TIMES
1034
1036
1136
1046
UPGRADE
CROSS SELL
WAYFINDING
1038
1040
1044
1132
1116
1138
1118
RECEIVE TARGETED MESSAGES OF INTEREST
PROXIMITY SENSING
1130
1124
TRANSPORT OPTIONS
PROVIDE FEEDBACK
1110
1126
RATE EXHIBITORS (EXPERIENCES, PRODUCTS, ETC)
INTERACTING WITH EXHIBITORS
COUPONING
1122
AR EXPERIENCES
1120
EXHIBITOR IN-APP PRIVATE AREA / CONTENT
1128
DIGITAL BAG
1114
1108
NETWORKING WITH OTHER EXHIBITORS
1134
1112
WAYFINDING/ MAP
1106

FIG. 44B

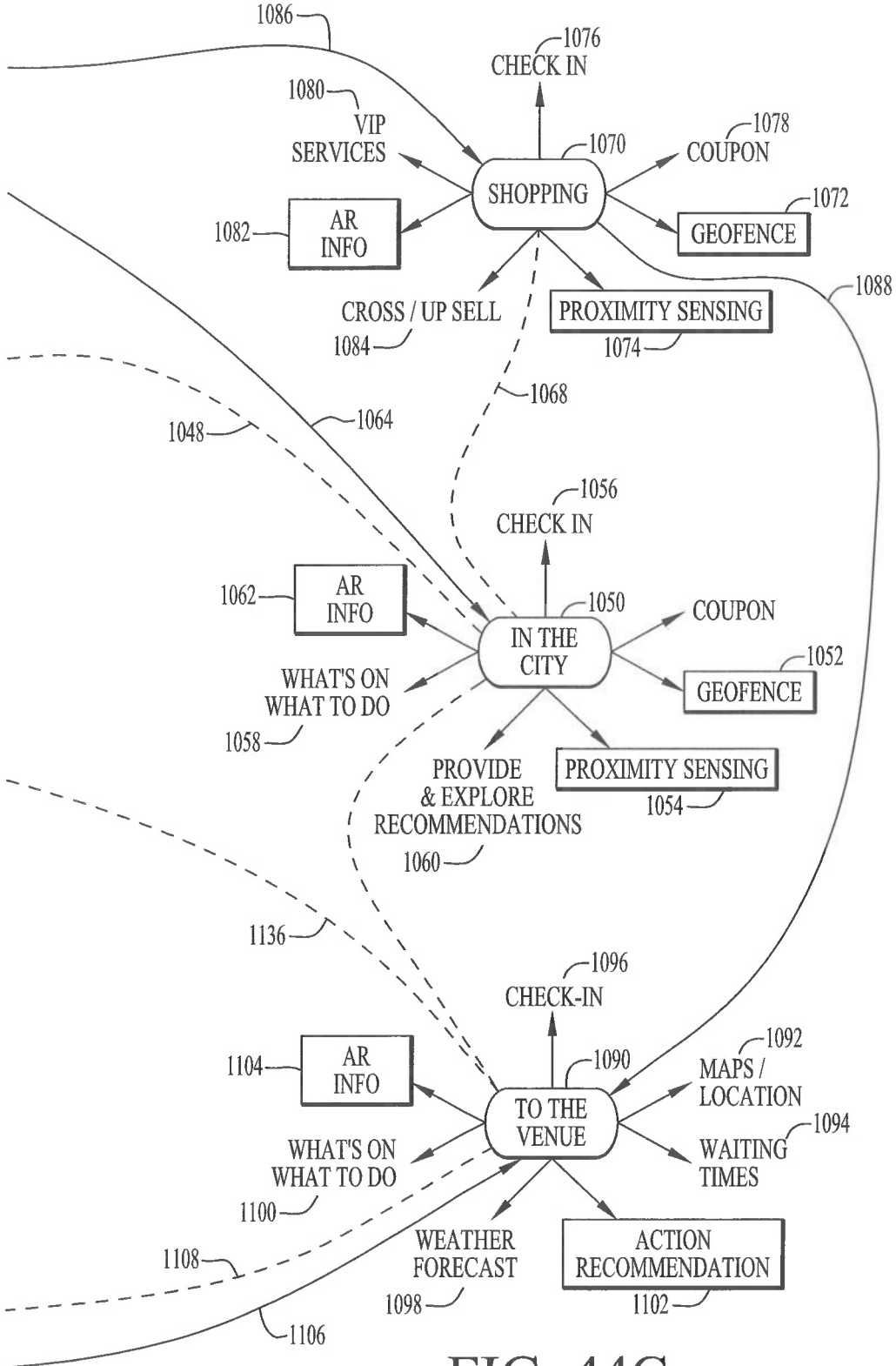

1086
1076
CHECK IN
1080
VIP SERVICES
1078
COUPON
1070
SHOPPING
1072
1082
AR INFO
GEOFENCE
1088
CROSS / UP SELL
1084
PROXIMITY SENSING
1074
1068
1048
1064
1056
CHECK IN
1062
AR INFO
1050
COUPON
IN THE CITY
1052
WHAT'S ON WHAT TO DO
GEOFENCE
1058
PROVIDE & EXPLORE RECOMMENDATIONS
PROXIMITY SENSING
1054
1060
1136
1096
CHECK-IN
1104
AR INFO
1090
1092
MAPS / LOCATION
TO THE VENUE
WHAT'S ON WHAT TO DO
1094
WAITING TIMES
1100
1108
WEATHER FORECAST
ACTION RECOMMENDATION
1098
1102
1106

FIG. 44C

FIG. 45A	FIG. 45B

FIG. 45

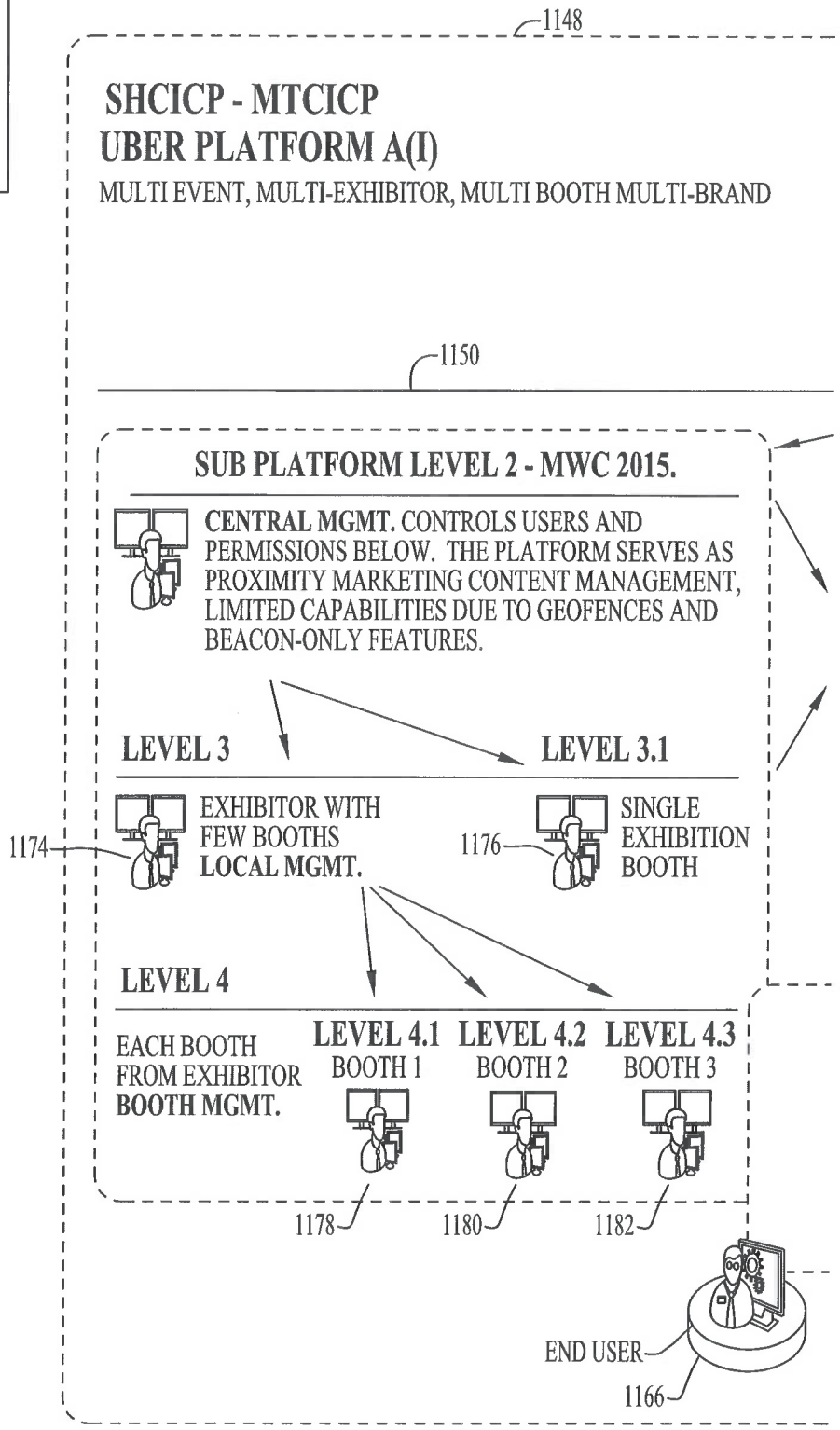


FIG. 45A

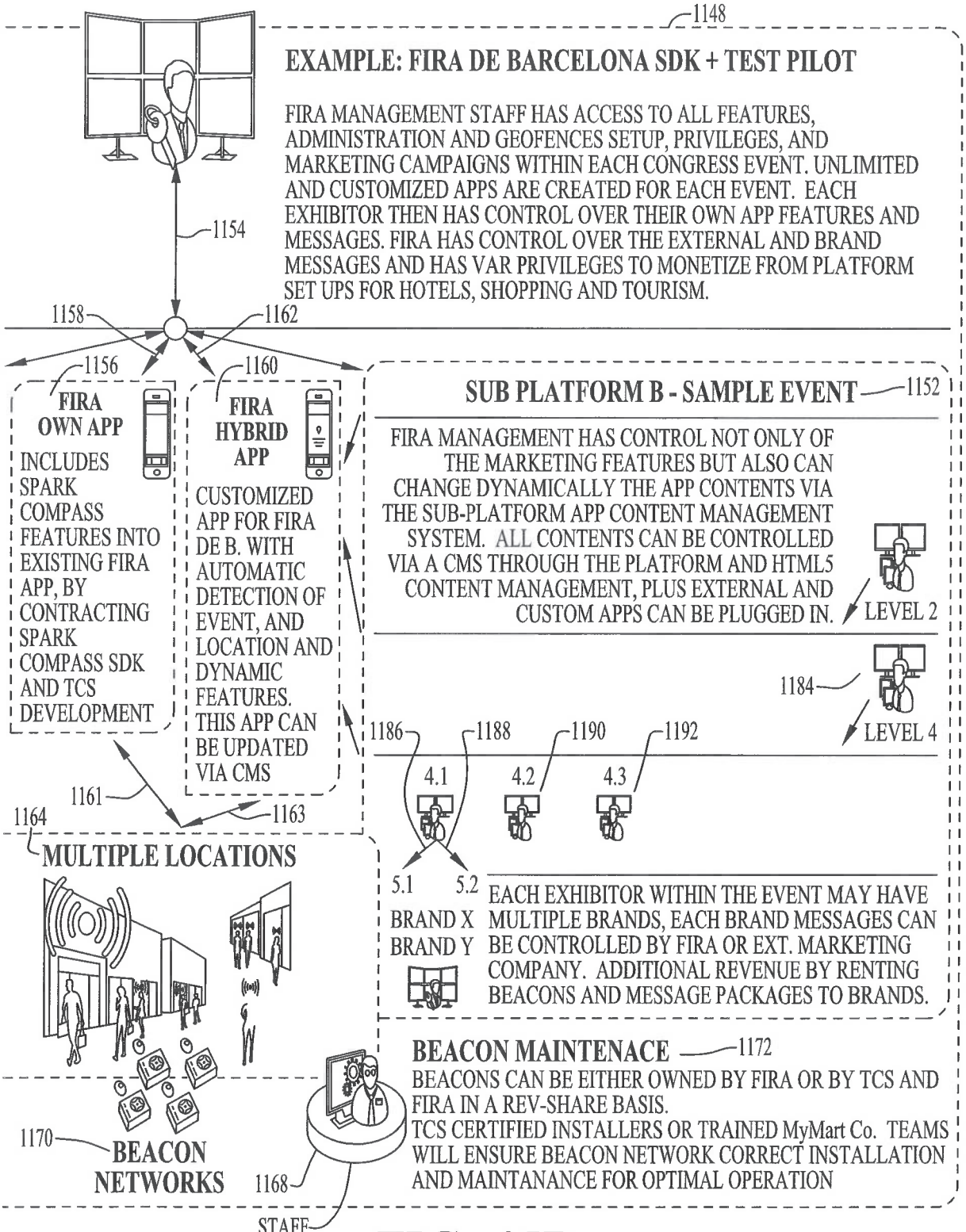

1148
EXAMPLE: FIRA DE BARCELONA SDK + TEST PILOT
FIRA MANAGEMENT STAFF HAS ACCESS TO ALL FEATURES, ADMINISTRATION AND GEOFENCES SETUP, PRIVILEGES, AND MARKETING CAMPAIGNS WITHIN EACH CONGRESS EVENT. UNLIMITED AND CUSTOMIZED APPS ARE CREATED FOR EACH EVENT. EACH EXHIBITOR THEN HAS CONTROL OVER THEIR OWN APP FEATURES AND MESSAGES. FIRA HAS CONTROL OVER THE EXTERNAL AND BRAND MESSAGES AND HAS VAR PRIVILEGES TO MONETIZE FROM PLATFORM SET UPS FOR HOTELS, SHOPPING AND TOURISM.
1154
1158
1162
1156
1160
FIRA OWN APP
INCLUDES SPARK COMPASS FEATURES INTO EXISTING FIRA APP, BY CONTRACTING SPARK COMPASS SDK AND TCS DEVELOPMENT
FIRA HYBRID APP
CUSTOMIZED APP FOR FIRA DE B. WITH AUTOMATIC DETECTION OF EVENT, AND LOCATION AND DYNAMIC FEATURES. THIS APP CAN BE UPDATED VIA CMS
SUB PLATFORM B - SAMPLE EVENT
1152
FIRA MANAGEMENT HAS CONTROL NOT ONLY OF THE MARKETING FEATURES BUT ALSO CAN CHANGE DYNAMICALLY THE APP CONTENTS VIA THE SUB-PLATFORM APP CONTENT MANAGEMENT SYSTEM. ALL CONTENTS CAN BE CONTROLLED VIA A CMS THROUGH THE PLATFORM AND HTML5 CONTENT MANAGEMENT, PLUS EXTERNAL AND CUSTOM APPS CAN BE PLUGGED IN.
LEVEL 2
1184
LEVEL 4
1186
1188
1190
1192
4.1
4.2
4.3
1161
1163
1164
MULTIPLE LOCATIONS
5.1
5.2
BRAND X
BRAND Y
EACH EXHIBITOR WITHIN THE EVENT MAY HAVE MULTIPLE BRANDS, EACH BRAND MESSAGES CAN BE CONTROLLED BY FIRA OR EXT. MARKETING COMPANY. ADDITIONAL REVENUE BY RENTING BEACONS AND MESSAGE PACKAGES TO BRANDS.
BEACON MAINTENACE
1172
BEACONS CAN BE EITHER OWNED BY FIRA OR BY TCS AND FIRA IN A REV-SHARE BASIS.
TCS CERTIFIED INSTALLERS OR TRAINED MyMart Co. TEAMS WILL ENSURE BEACON NETWORK CORRECT INSTALLATION AND MAINTANANCE FOR OPTIMAL OPERATION
1170
BEACON NETWORKS
1168
STAFF

FIG. 45B

FIG. 46A	FIG. 46B	FIG. 46C

FIG. 46

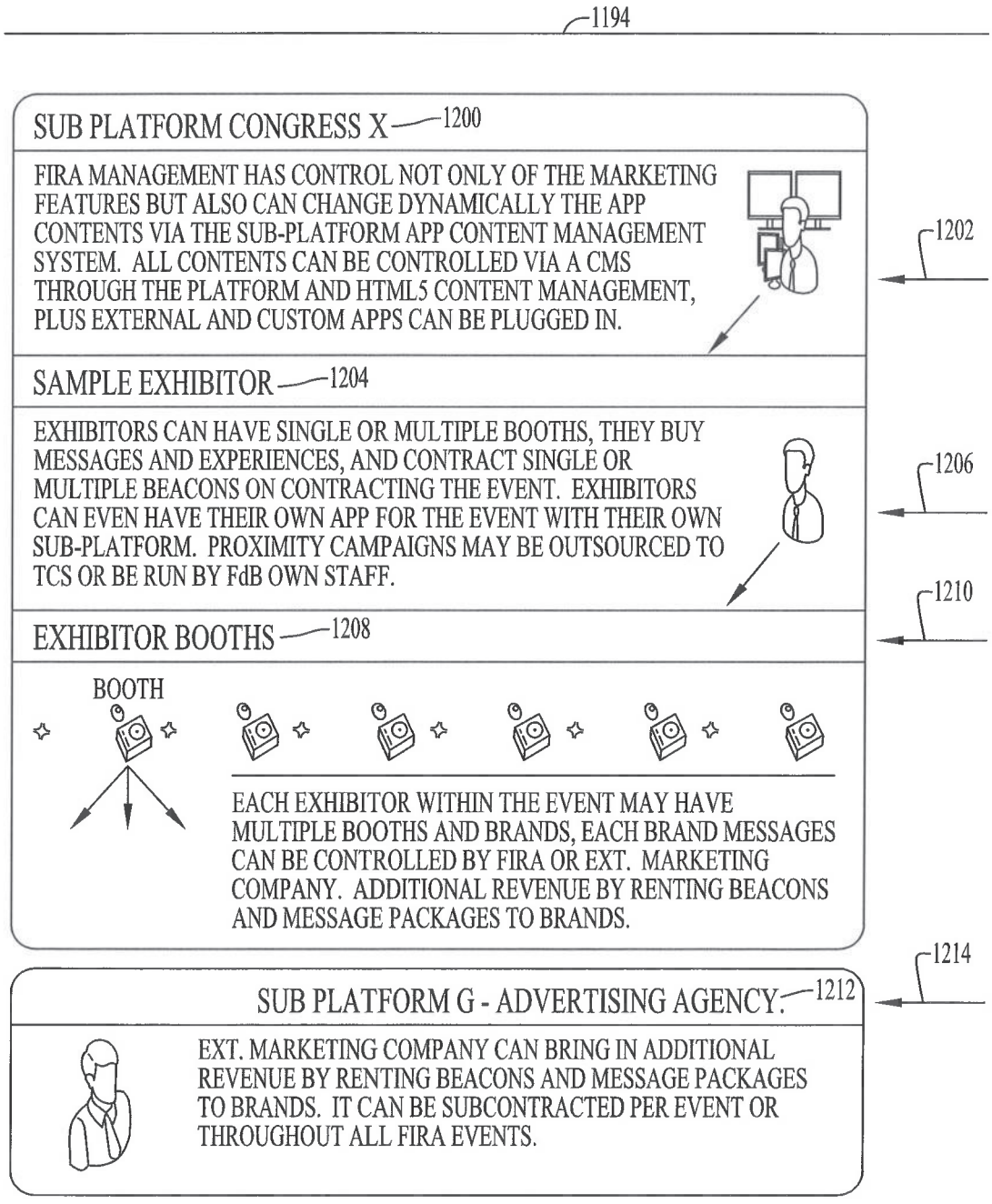
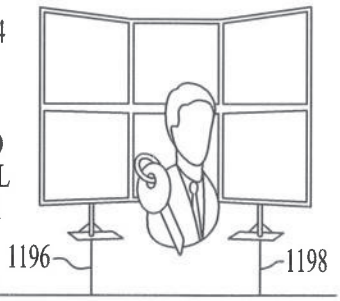


FIG. 46A

SHCICP - MTCICP

1194

FIRA MANAGEMENT STAFF HAS ACCESS TO ALL FEATURES, ADMINISTRATION AND GEOFENCES SETUP, PRIVILEGES, AND MARKETING CAMPAIGNS WITHIN EACH CONGRESS EVENT. UNLIMITED AND CUSTOMIZED APPS ARE CREATED FOR EACH EVENT. EACH EXHIBITOR THEN HAS CONTROL OVER THEIR OWN APP FEATURES AND MESSAGES. FIRA HAS CONTROL OVER THE EXTERNAL AND BRAND MESSAGES AND HAS VAR PRIVILEGES TO MONETIZE FROM PLATFORM SET UPS FOR HOTELS, SHOPPING AND TOURISM.



1218

PLATFORM FEATURES 1216
AIRPORT, TRAIN AND METRO GEOFENCES
CONGRESS PROXIMITY GEOFENCES
CONGRESS PROXIMITY BEACONS EXTERIOR
CONGRESS ENTRANCES BEACONS INTERIOR
CONGRESS EXPERIENCES BEACONS
ALL OTHER SPARK COMPASS SPECS.
EXTERNAL HTML5 AND CUSTOM APPS / SDK

1202

1222

1206

EXHIBITOR ACCESS FEATURES 1220
BEACONS IN BOOTH
- MESSAGES
- EXPERIENCES
- COUPONS
- CHECK-IN BOOTH
- DIRECTIONS

1210

BEACONS NEAR PRODUCTS
- MESSAGES
- EXPERIENCES
- PRODUCT SPECS

1226

1214

AGENCY ACCESS FEATURES 1224
- MESSAGES
- EXPERIENCES
- COUPONS
- AR
- DIGITAL SIGNAGE

FIG. 46B

UBER PLATFORM A(II)
FIRA DE BARCELONA PLATFORM
MULTI EVENT, MULTI-EXHIBITOR, MULTI BOOTH MULTI-BRAND

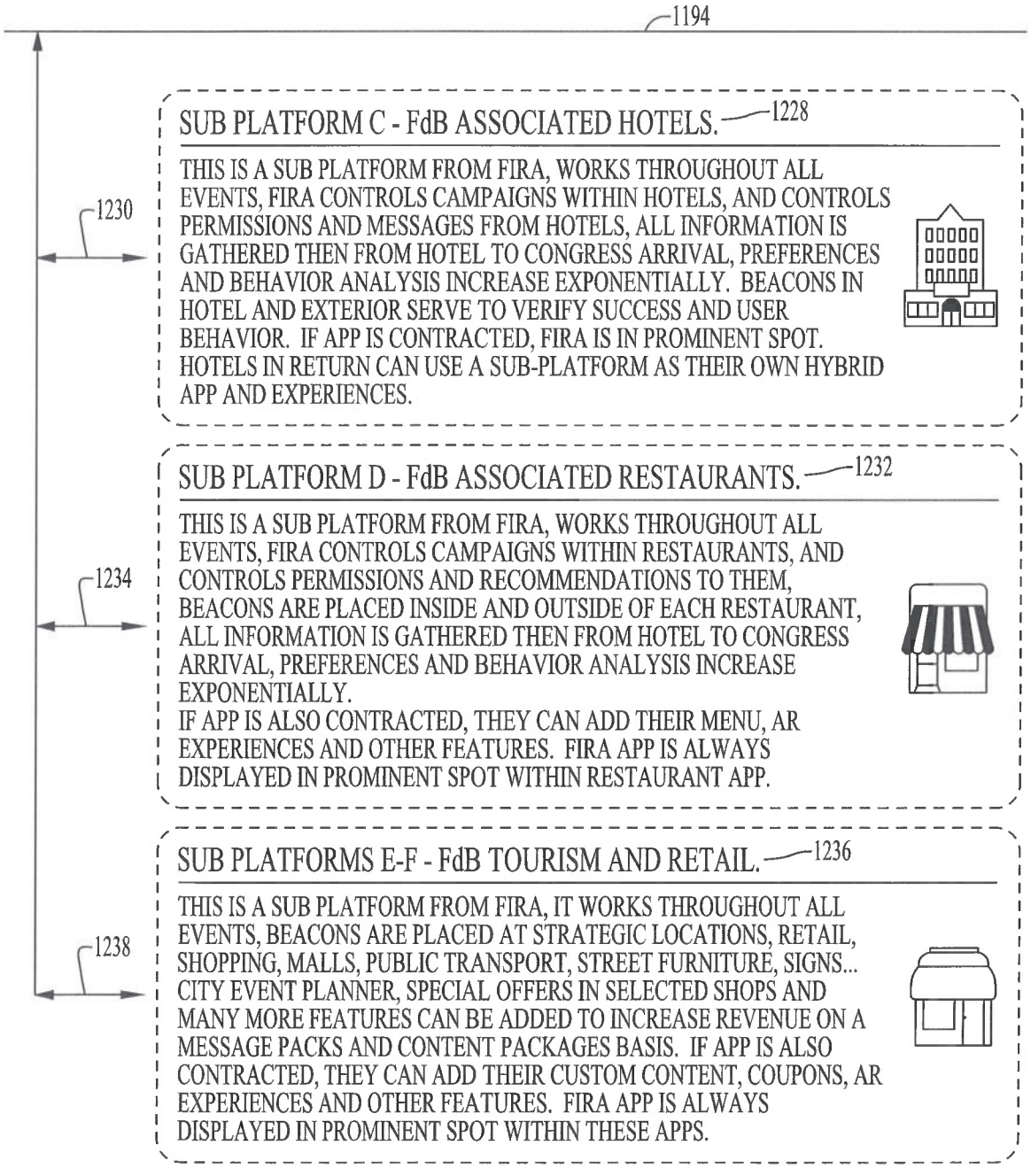


FIG. 46C

FIG. 47A	FIG. 47B	FIG. 47C

FIG. 47

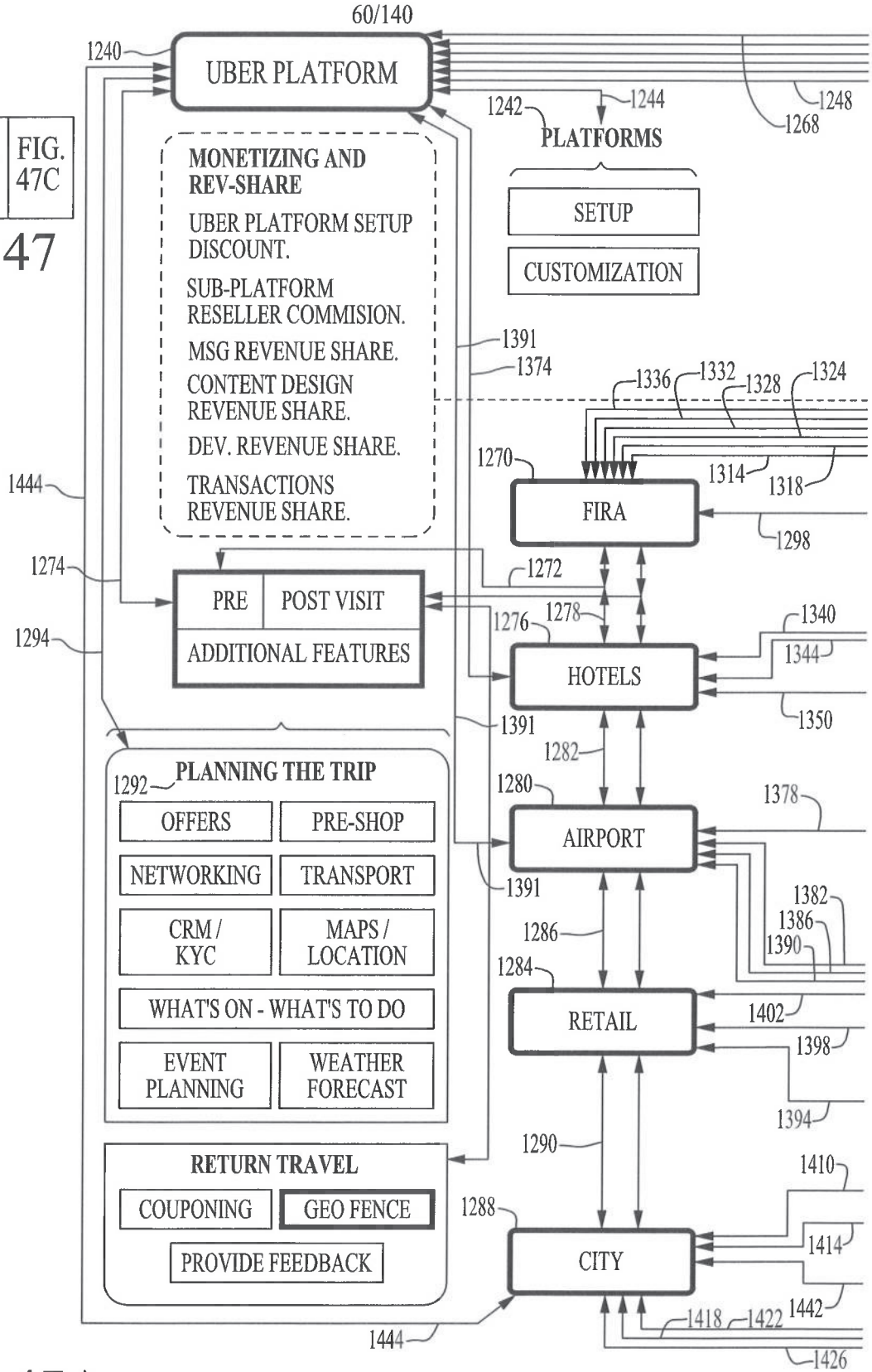


FIG. 47A

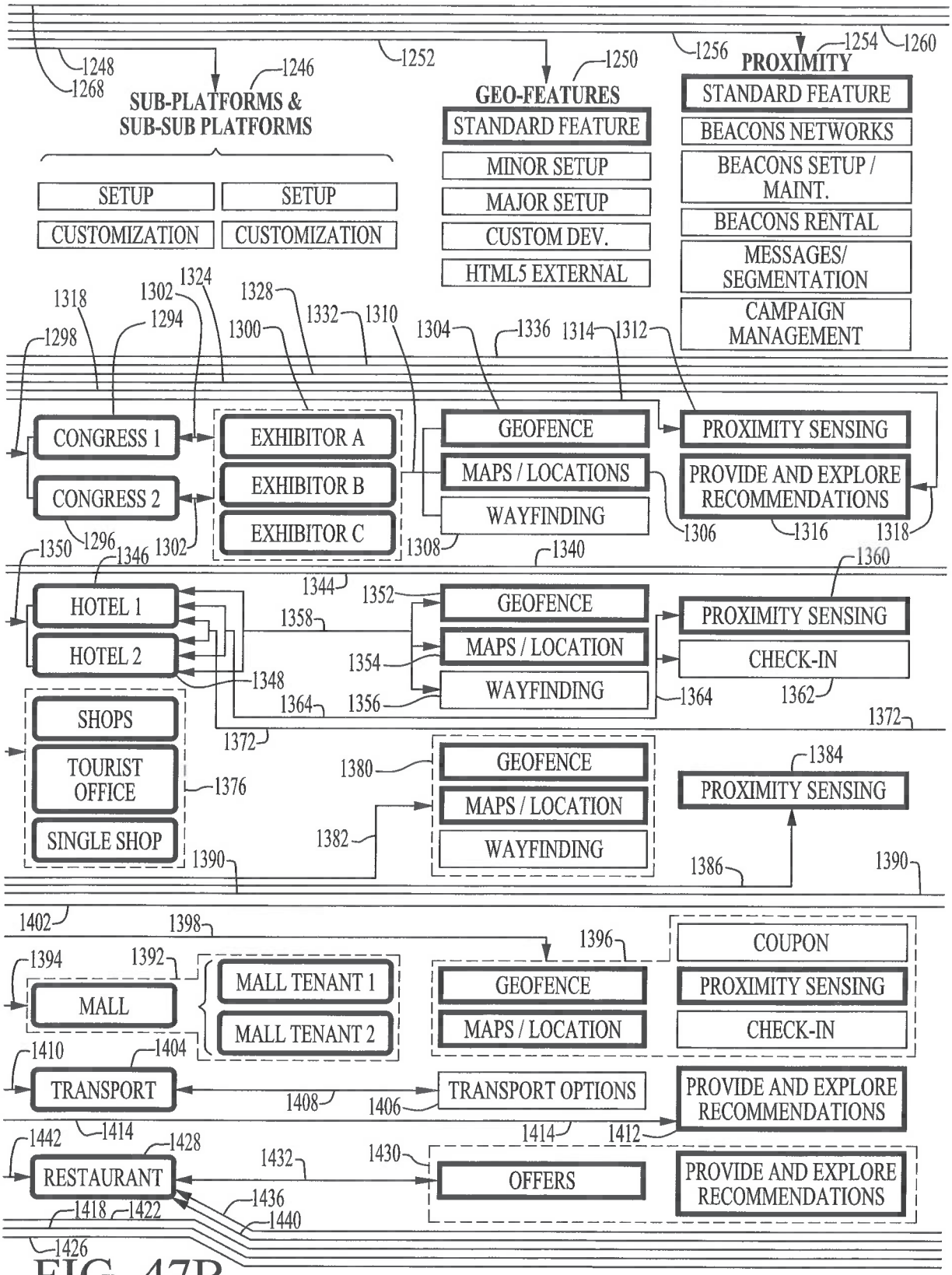

1248
1268
SUB-PLATFORMS &
SUB-SUB PLATFORMS
1246
SETUP
SETUP
CUSTOMIZATION
CUSTOMIZATION
1252
GEO-FEATURES
1250
STANDARD FEATURE
MINOR SETUP
MAJOR SETUP
CUSTOM DEV.
HTML5 EXTERNAL
1256
PROXIMITY
1254
1260
STANDARD FEATURE
BEACONS NETWORKS
BEACONS SETUP / MAINT.
BEACONS RENTAL
MESSAGES/ SEGMENTATION
CAMPAIGN MANAGEMENT
1318
1302
1324
1328
1294
1332
1310
1298
1300
1304
1336
1314
1312
CONGRESS 1
CONGRESS 2
EXHIBITOR A
EXHIBITOR B
EXHIBITOR C
GEOFENCE
MAPS / LOCATIONS
WAYFINDING
PROXIMITY SENSING
PROVIDE AND EXPLORE RECOMMENDATIONS
1306
1316
1318
1308
1340
1350
1296
1346
1302
1344
1352
1360
HOTEL 1
HOTEL 2
1358
1354
1348
1364
1356
GEOFENCE
MAPS / LOCATION
WAYFINDING
PROXIMITY SENSING
CHECK-IN
1364
1362
1372
SHOPS
TOURIST OFFICE
SINGLE SHOP
1376
1372
1380
1382
GEOFENCE
MAPS / LOCATION
WAYFINDING
1384
PROXIMITY SENSING
1386
1390
1390
1402
1398
1396
1394
1392
MALL
MALL TENANT 1
MALL TENANT 2
GEOFENCE
MAPS / LOCATION
COUPON
PROXIMITY SENSING
CHECK-IN
1410
1404
TRANSPORT
1408
1406
TRANSPORT OPTIONS
PROVIDE AND EXPLORE RECOMMENDATIONS
1414
1412
1442
1414
1428
1432
1430
RESTAURANT
OFFERS
PROVIDE AND EXPLORE RECOMMENDATIONS
1436
1418
1422
1440
1426

FIG. 47B

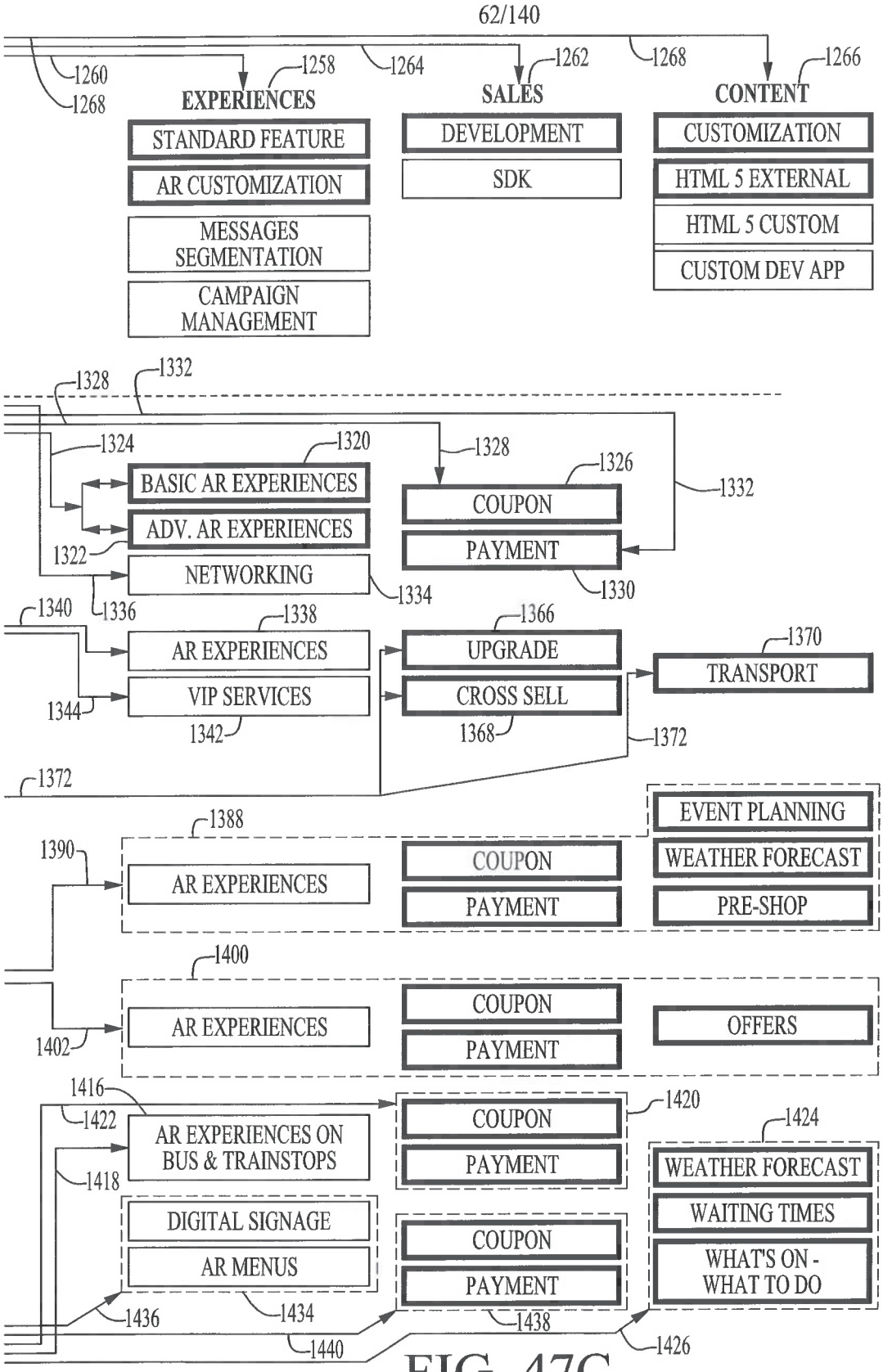

1260
1268
EXPERIENCES
1258
1264
SALES
1262
1268
CONTENT
1266
STANDARD FEATURE
AR CUSTOMIZATION
MESSAGES SEGMENTATION
CAMPAIGN MANAGEMENT
DEVELOPMENT
SDK
CUSTOMIZATION
HTML 5 EXTERNAL
HTML 5 CUSTOM
CUSTOM DEV APP
1328
1332
1324
1320
1328
1326
BASIC AR EXPERIENCES
ADV. AR EXPERIENCES
NETWORKING
COUPON
PAYMENT
1332
1322
1334
1330
1340
1336
1338
1366
1370
AR EXPERIENCES
VIP SERVICES
UPGRADE
CROSS SELL
TRANSPORT
1344
1342
1368
1372
1372
1388
EVENT PLANNING
1390
AR EXPERIENCES
COUPON
PAYMENT
WEATHER FORECAST
PRE-SHOP
1400
AR EXPERIENCES
COUPON
PAYMENT
OFFERS
1402
1416
1422
AR EXPERIENCES ON BUS & TRAINSTOPS
COUPON
PAYMENT
1420
1424
1418
DIGITAL SIGNAGE
AR MENUS
COUPON
PAYMENT
WEATHER FORECAST
WAITING TIMES
WHAT'S ON - WHAT TO DO
1436
1434
1438
1440
1426

FIG. 47C

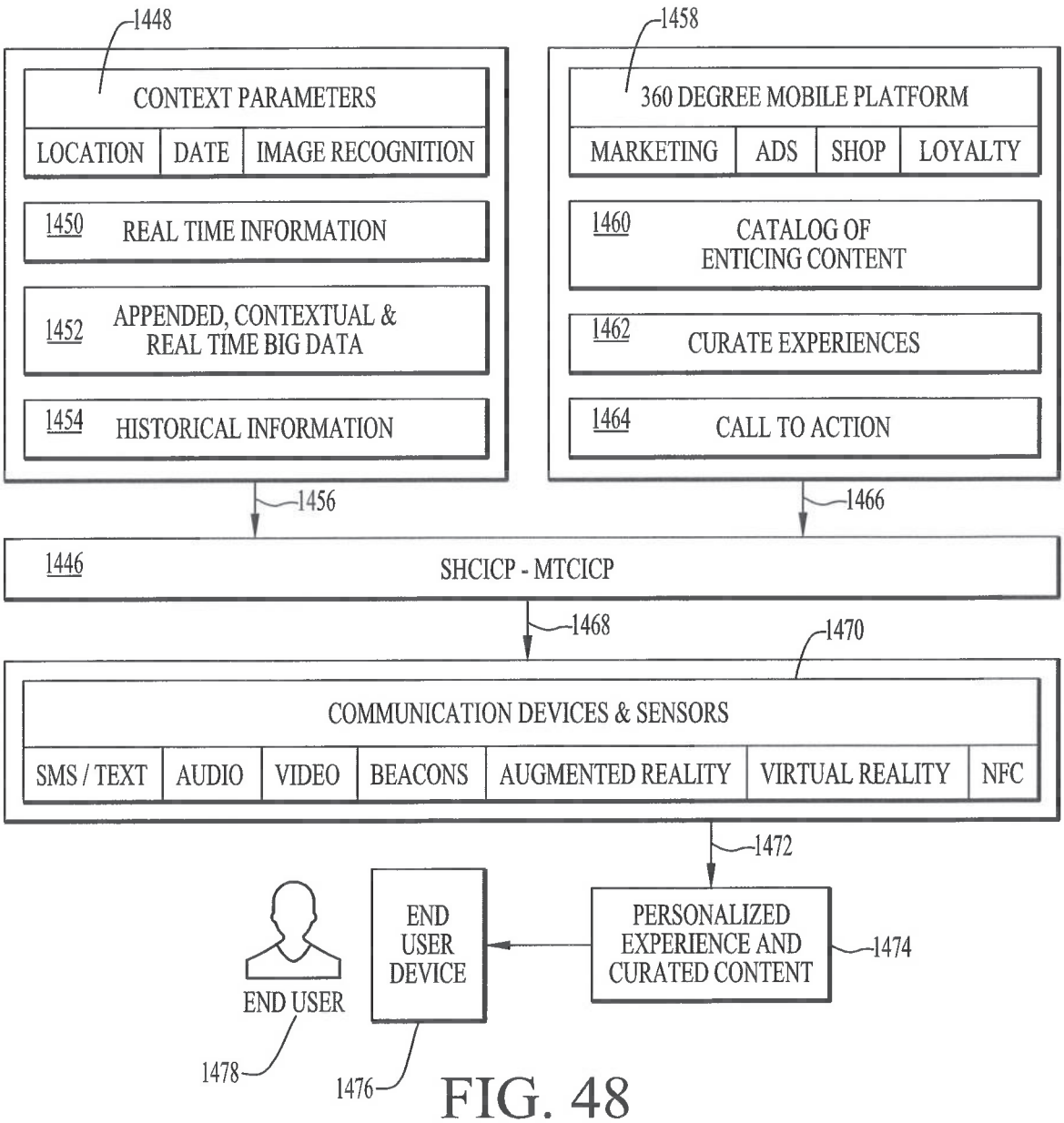

1448
CONTEXT PARAMETERS
LOCATION
DATE
IMAGE RECOGNITION
1450
REAL TIME INFORMATION
1452
APPENDED, CONTEXTUAL & REAL TIME BIG DATA
1454
HISTORICAL INFORMATION
1458
360 DEGREE MOBILE PLATFORM
MARKETING
ADS
SHOP
LOYALTY
1460
CATALOG OF ENTICING CONTENT
1462
CURATE EXPERIENCES
1464
CALL TO ACTION
1456
1466
1446
SHCICP - MTCICP
1468
1470
COMMUNICATION DEVICES & SENSORS
SMS / TEXT
AUDIO
VIDEO
BEACONS
AUGMENTED REALITY
VIRTUAL REALITY
NFC
1472
END USER
END USER DEVICE
PERSONALIZED EXPERIENCE AND CURATED CONTENT
1474
1478
1476

FIG. 48

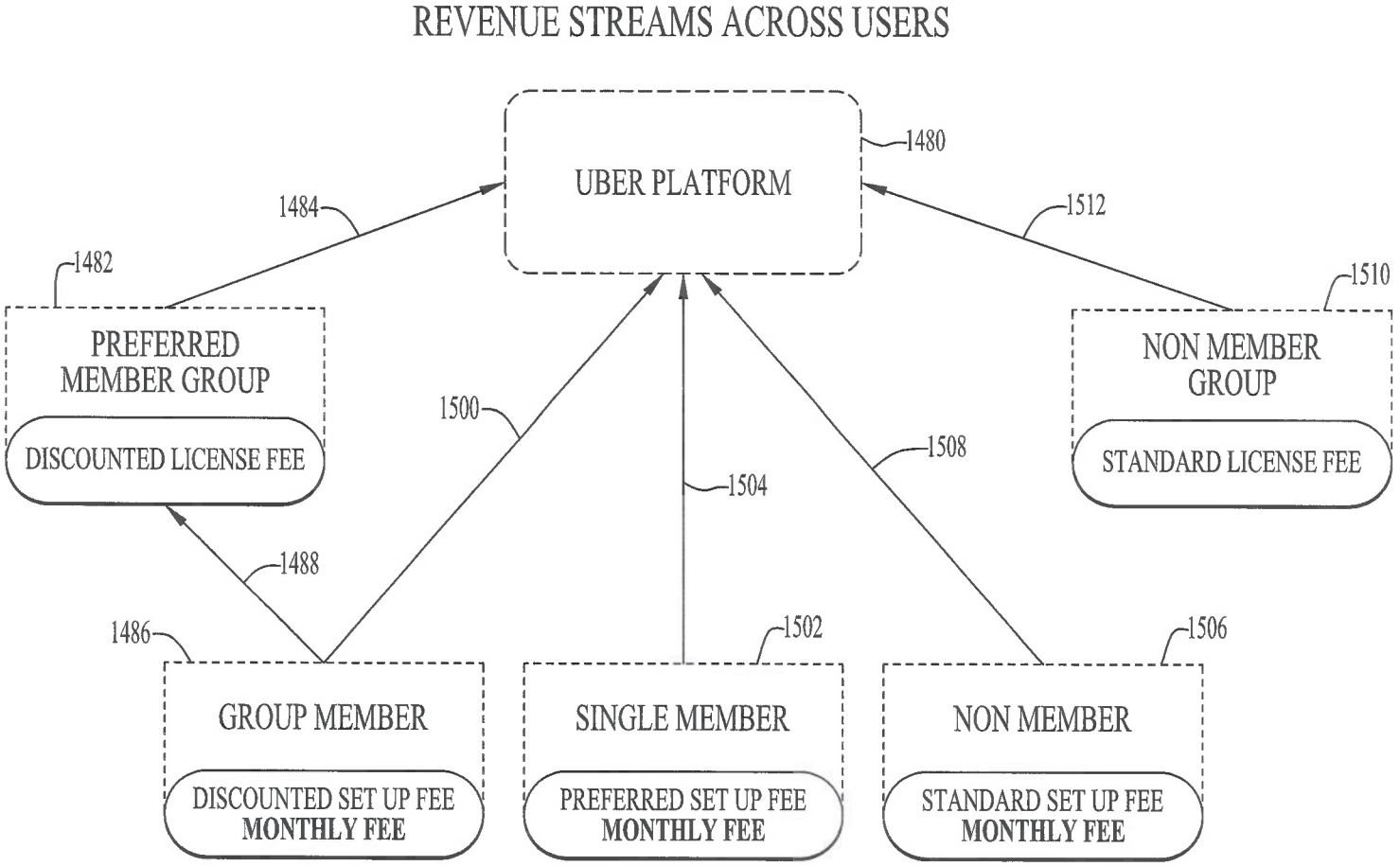

REVENUE STREAMS ACROSS USERS
UBER PLATFORM
1480
1484
1512
1482
1510
PREFERRED MEMBER GROUP
DISCOUNTED LICENSE FEE
NON MEMBER GROUP
STANDARD LICENSE FEE
1500
1504
1508
1488
1486
1502
1506
GROUP MEMBER
DISCOUNTED SET UP FEE
MONTHLY FEE
SINGLE MEMBER
PREFERRED SET UP FEE
MONTHLY FEE
NON MEMBER
STANDARD SET UP FEE
MONTHLY FEE

FIG. 49

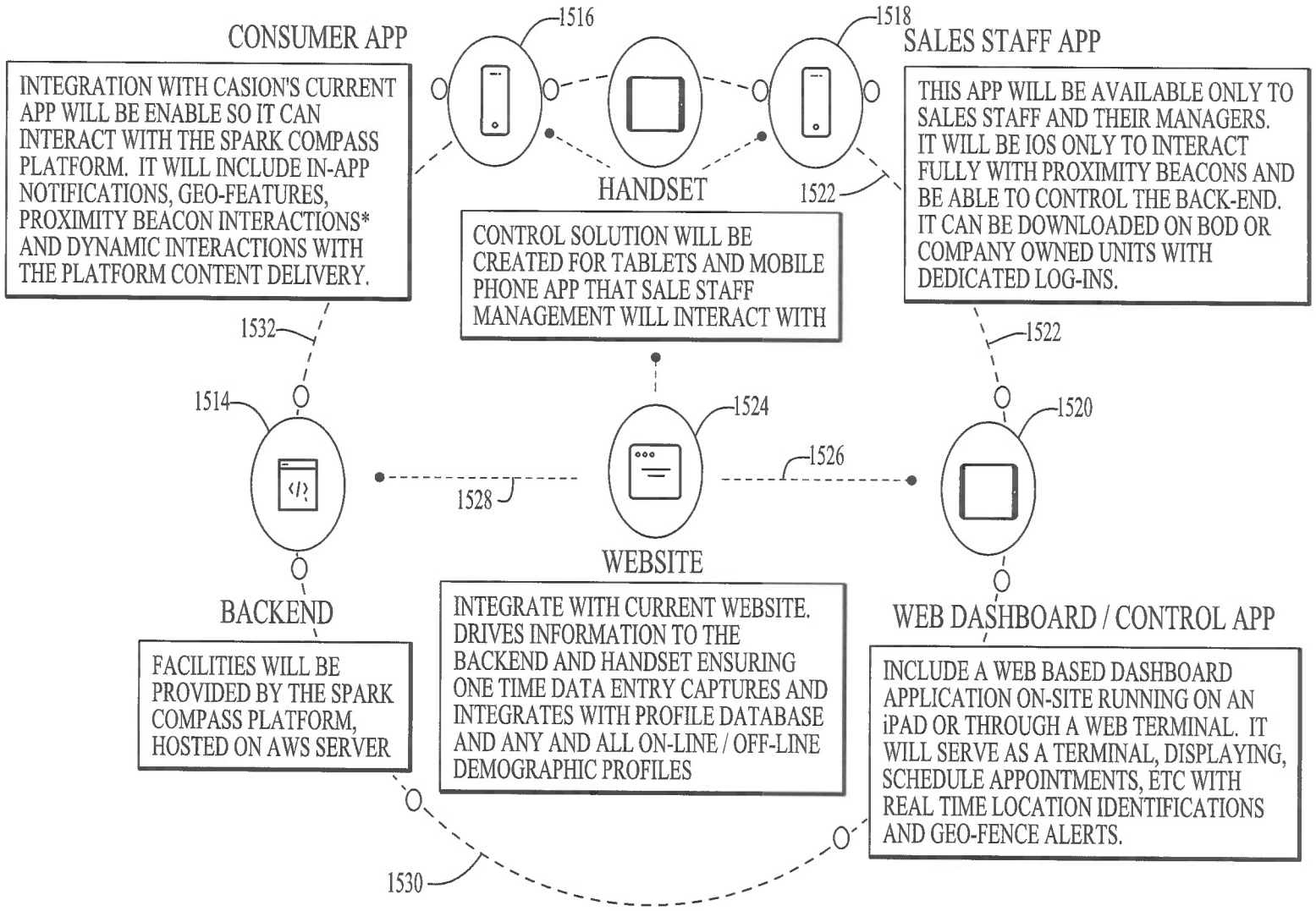

CONSUMER APP
INTEGRATION WITH CASION'S CURRENT APP WILL BE ENABLE SO IT CAN INTERACT WITH THE SPARK COMPASS PLATFORM. IT WILL INCLUDE IN-APP NOTIFICATIONS, GEO-FEATURES, PROXIMITY BEACON INTERACTIONS* AND DYNAMIC INTERACTIONS WITH THE PLATFORM CONTENT DELIVERY.
1516
HANDSET
CONTROL SOLUTION WILL BE CREATED FOR TABLETS AND MOBILE PHONE APP THAT SALE STAFF MANAGEMENT WILL INTERACT WITH
1518
SALES STAFF APP
THIS APP WILL BE AVAILABLE ONLY TO SALES STAFF AND THEIR MANAGERS. IT WILL BE IOS ONLY TO INTERACT FULLY WITH PROXIMITY BEACONS AND BE ABLE TO CONTROL THE BACK-END. IT CAN BE DOWNLOADED ON BOD OR COMPANY OWNED UNITS WITH DEDICATED LOG-INS.
1522
1532
1514
1524
1526
1528
1520
1522
BACKEND
FACILITIES WILL BE PROVIDED BY THE SPARK COMPASS PLATFORM, HOSTED ON AWS SERVER
WEBSITE
INTEGRATE WITH CURRENT WEBSITE. DRIVES INFORMATION TO THE BACKEND AND HANDSET ENSURING ONE TIME DATA ENTRY CAPTURES AND INTEGRATES WITH PROFILE DATABASE AND ANY AND ALL ON-LINE / OFF-LINE DEMOGRAPHIC PROFILES
WEB DASHBOARD / CONTROL APP
INCLUDE A WEB BASED DASHBOARD APPLICATION ON-SITE RUNNING ON AN iPAD OR THROUGH A WEB TERMINAL. IT WILL SERVE AS A TERMINAL, DISPLAYING, SCHEDULE APPOINTMENTS, ETC WITH REAL TIME LOCATION IDENTIFICATIONS AND GEO-FENCE ALERTS.
1530

FIG. 50

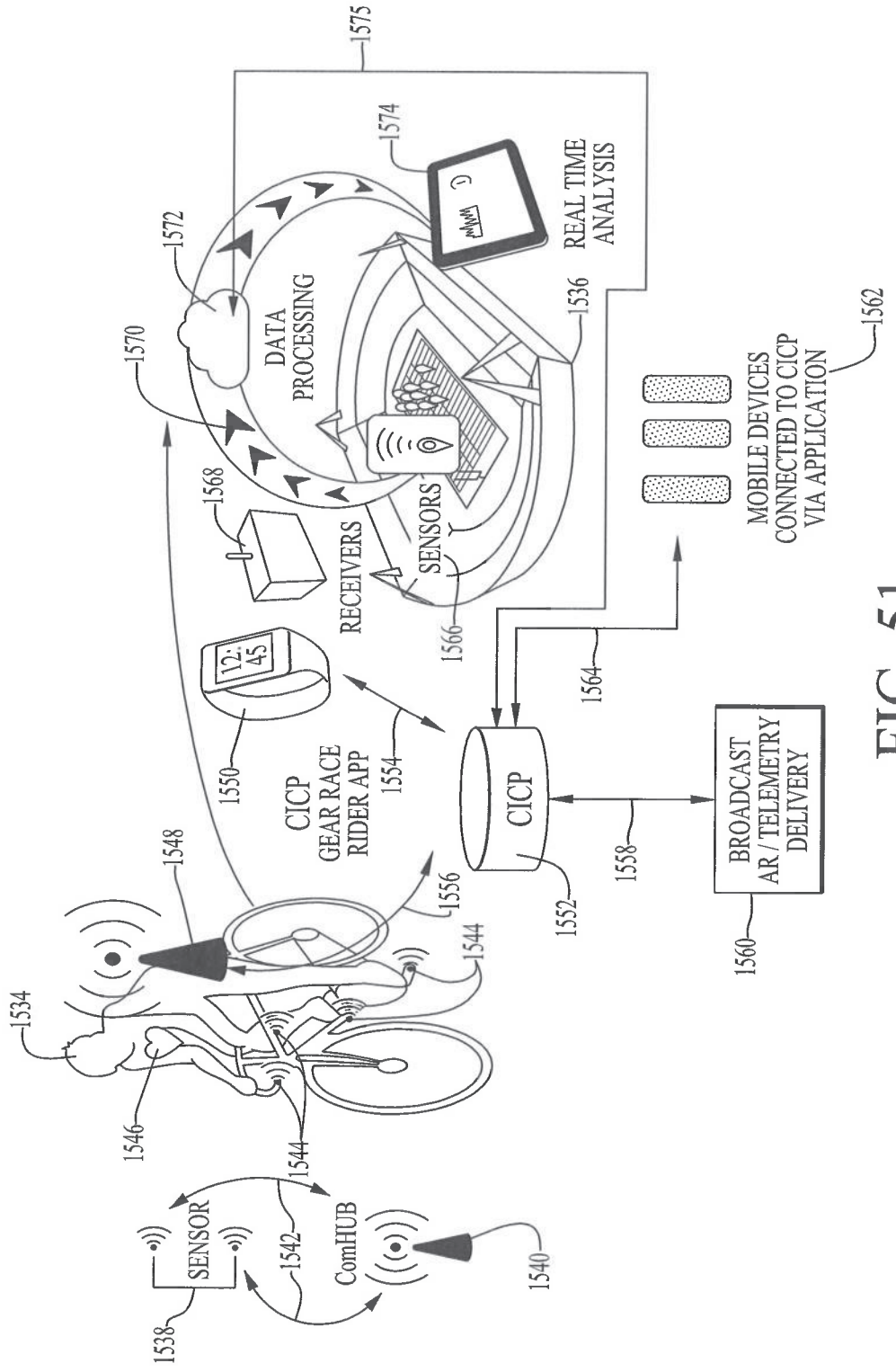

1575
1574
REAL TIME ANALYSIS
1572
DATA PROCESSING
1570
1536
1568
RECEIVERS
SENSORS
1566
MOBILE DEVICES CONNECTED TO CICP VIA APPLICATION
1562
1564
12:45
1550
CICP GEAR RACE RIDER APP
1554
CICP
1552
1558
BROADCAST AR / TELEMETRY DELIVERY
1560
1548
1556
1544
1534
1546
1544
SENSOR
1538
1542
ComHUB
1540

FIG. 51

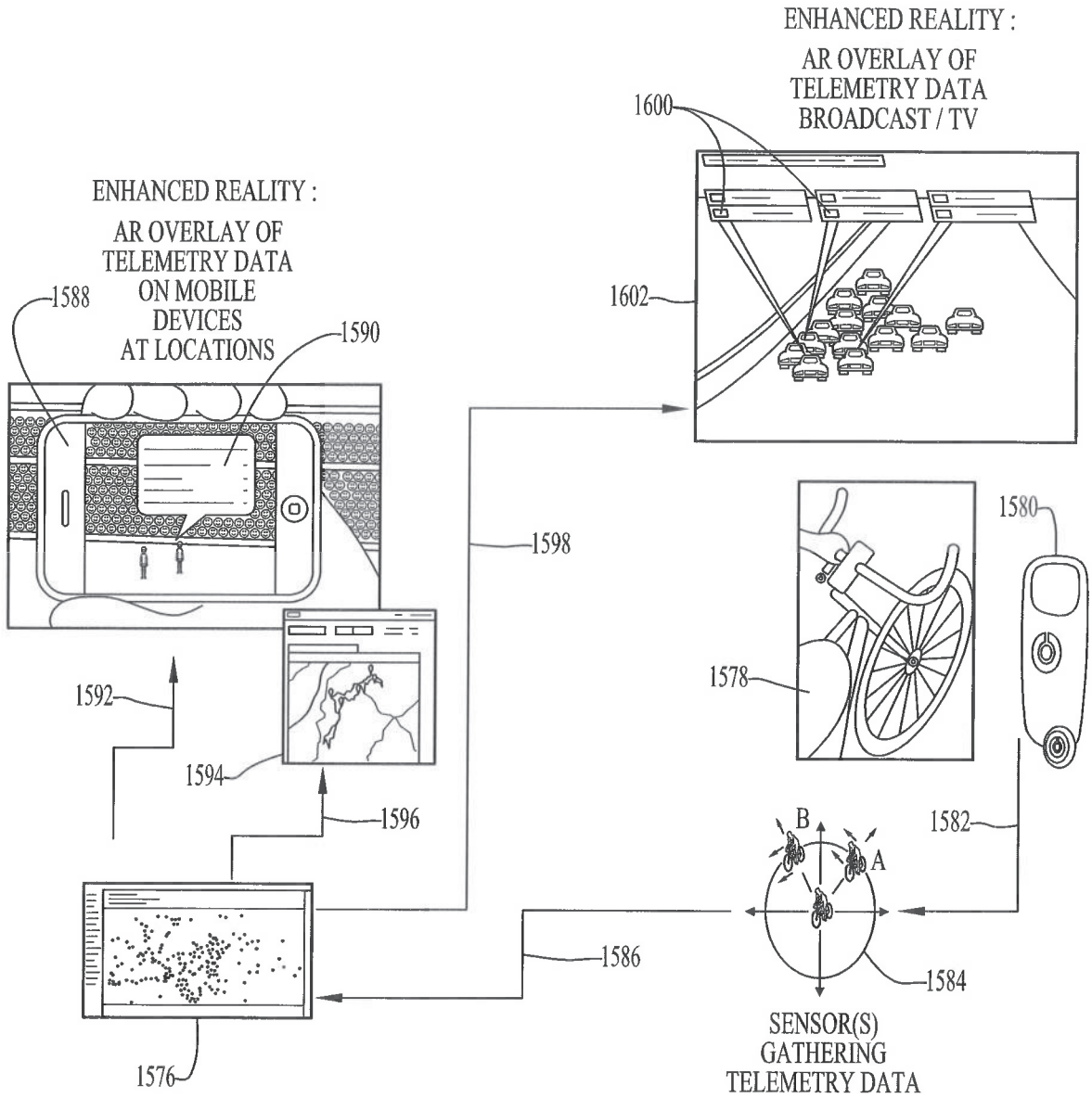

ENHANCED REALITY :
AR OVERLAY OF
TELEMETRY DATA
BROADCAST / TV
1600
1602
ENHANCED REALITY :
AR OVERLAY OF
TELEMETRY DATA
ON MOBILE
DEVICES
AT LOCATIONS
1588
1590
1598
1580
1578
1592
1594
1596
1582
B
A
1586
1584
1576
SENSOR(S)
GATHERING
TELEMETRY DATA

FIG. 52

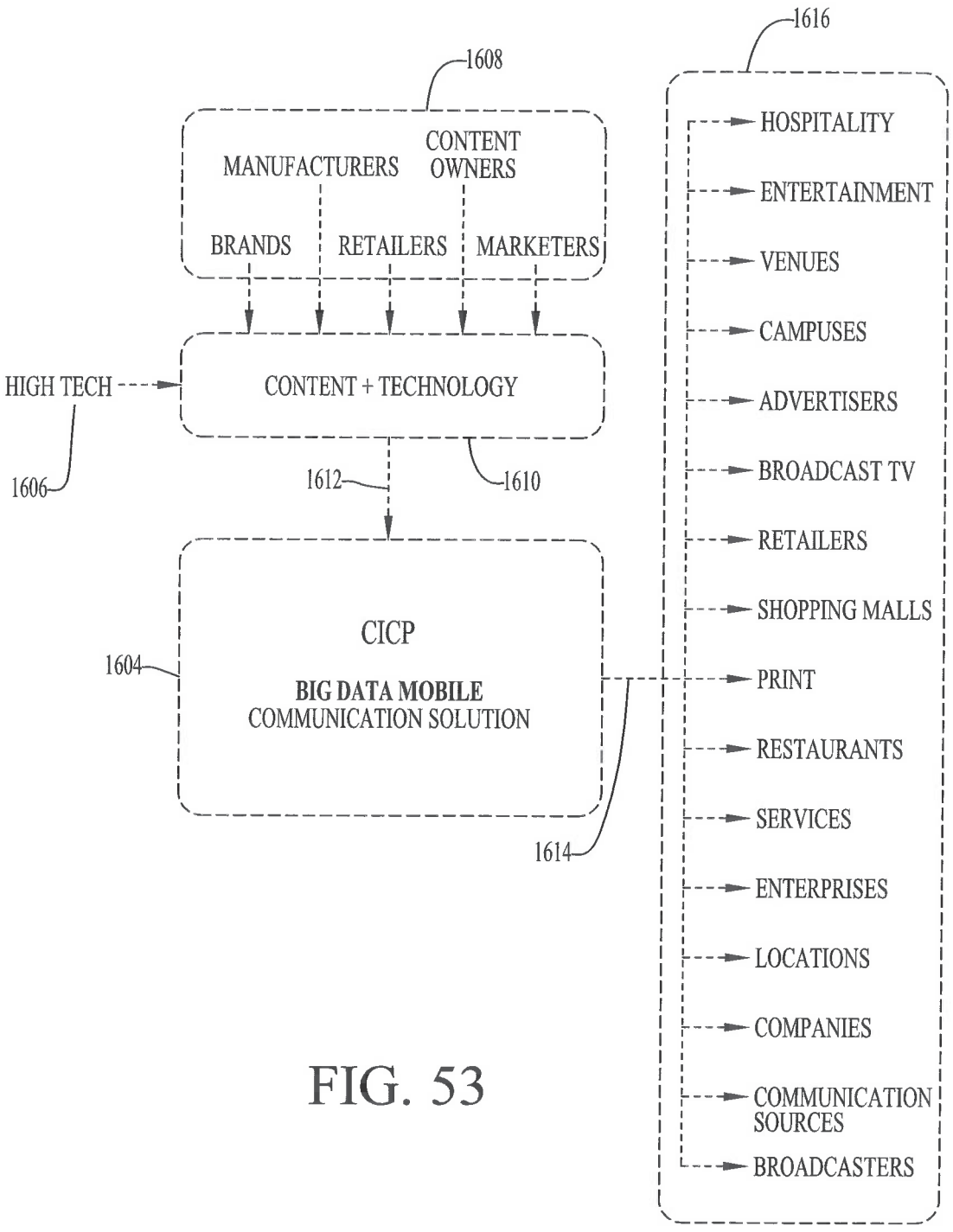

1608
MANUFACTURERS
CONTENT OWNERS
BRANDS
RETAILERS
MARKETERS
HIGH TECH
CONTENT + TECHNOLOGY
1606
1612
1610
CICP
BIG DATA MOBILE
COMMUNICATION SOLUTION
1604
1614
1616
HOSPITALITY
ENTERTAINMENT
VENUES
CAMPUSES
ADVERTISERS
BROADCAST TV
RETAILERS
SHOPPING MALLS
PRINT
RESTAURANTS
SERVICES
ENTERPRISES
LOCATIONS
COMPANIES
COMMUNICATION SOURCES
BROADCASTERS

FIG. 53

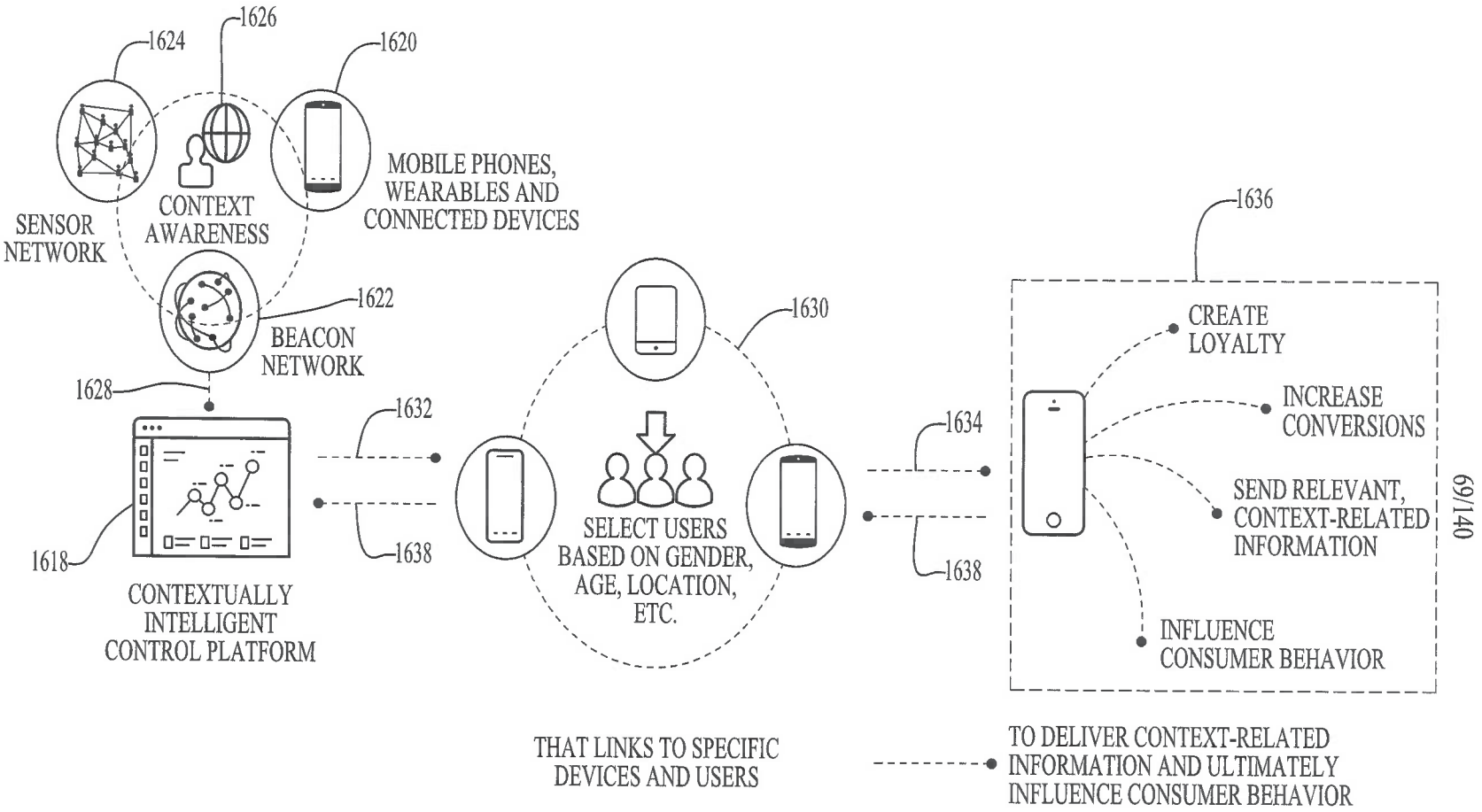

1624
1626
1620
SENSOR NETWORK
CONTEXT AWARENESS
MOBILE PHONES, WEARABLES AND CONNECTED DEVICES
1622
BEACON NETWORK
1628
1632
1618
1638
CONTEXTUALLY INTELLIGENT CONTROL PLATFORM
1630
SELECT USERS BASED ON GENDER, AGE, LOCATION, ETC.
1634
1638
1636
CREATE LOYALTY
INCREASE CONVERSIONS
SEND RELEVANT, CONTEXT-RELATED INFORMATION
INFLUENCE CONSUMER BEHAVIOR
THAT LINKS TO SPECIFIC DEVICES AND USERS
TO DELIVER CONTEXT-RELATED INFORMATION AND ULTIMATELY INFLUENCE CONSUMER BEHAVIOR

FIG. 54

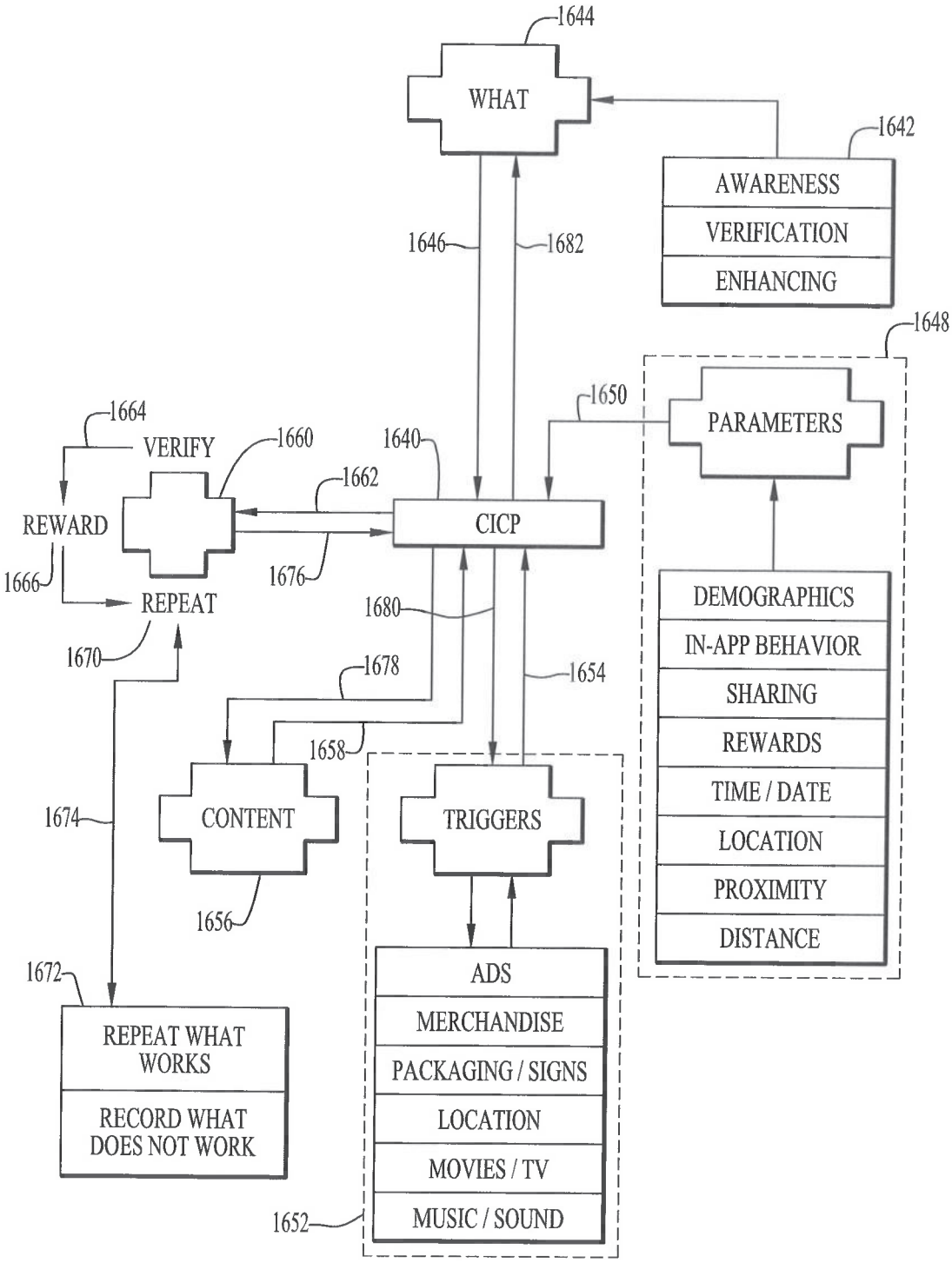

1644
WHAT
1642
AWARENESS
VERIFICATION
ENHANCING
1646
1682
1648
1650
PARAMETERS
1664
VERIFY
1660
1640
1662
REWARD
CICP
1666
1676
REPEAT
1680
DEMOGRAPHICS
IN-APP BEHAVIOR
SHARING
REWARDS
TIME / DATE
LOCATION
PROXIMITY
DISTANCE
1670
1678
1654
1658
1674
CONTENT
TRIGGERS
1656
1672
ADS
MERCHANDISE
PACKAGING / SIGNS
LOCATION
MOVIES / TV
MUSIC / SOUND
REPEAT WHAT WORKS
RECORD WHAT DOES NOT WORK
1652

FIG. 55

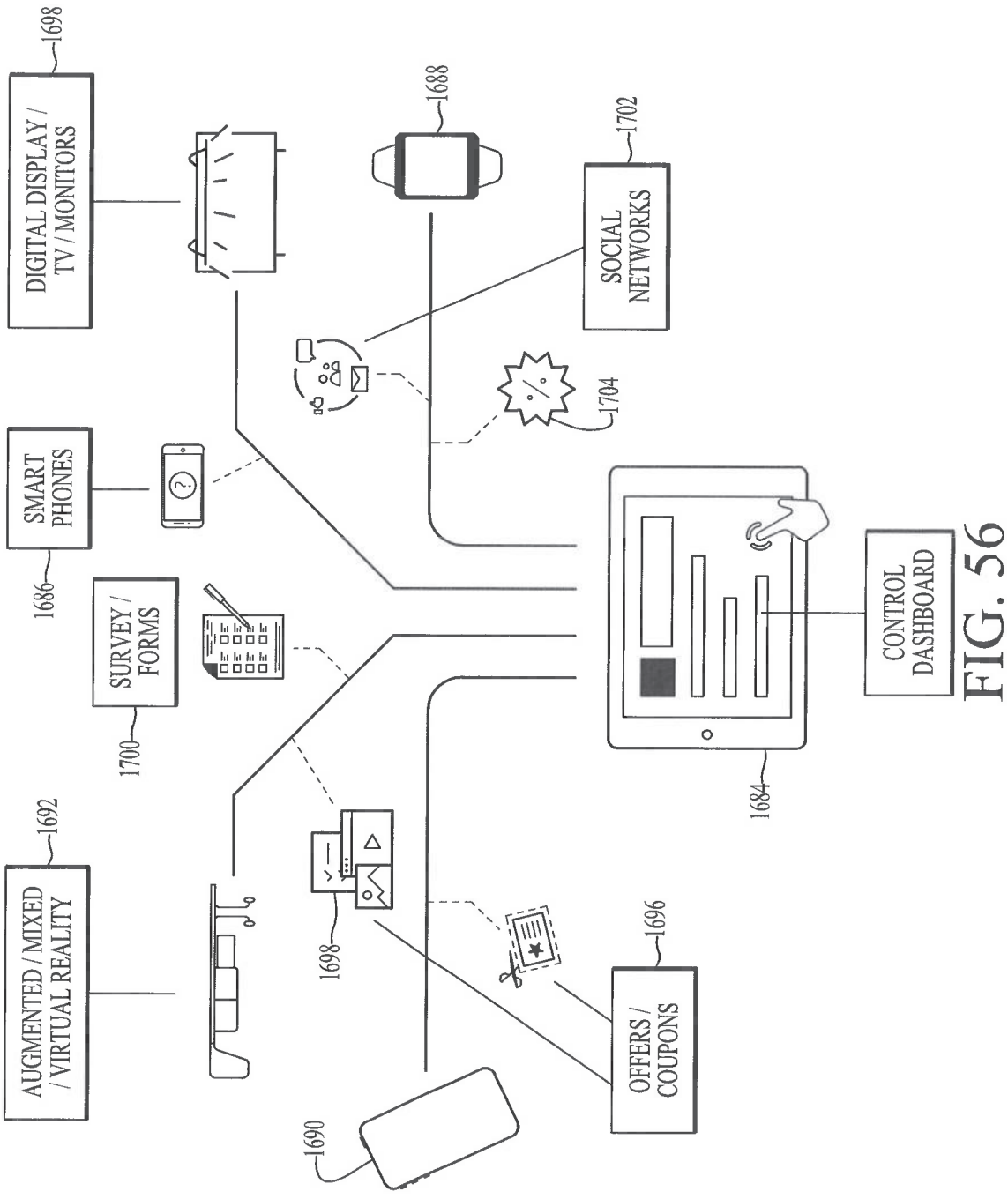

1698
DIGITAL DISPLAY / TV / MONITORS
1688
1702
SOCIAL NETWORKS
1704
SMART PHONES
1686
SURVEY / FORMS
1700
CONTROL DASHBOARD
1684
1692
AUGMENTED / MIXED / VIRTUAL REALITY
1698
1696
OFFERS / COUPONS
1690

FIG. 56

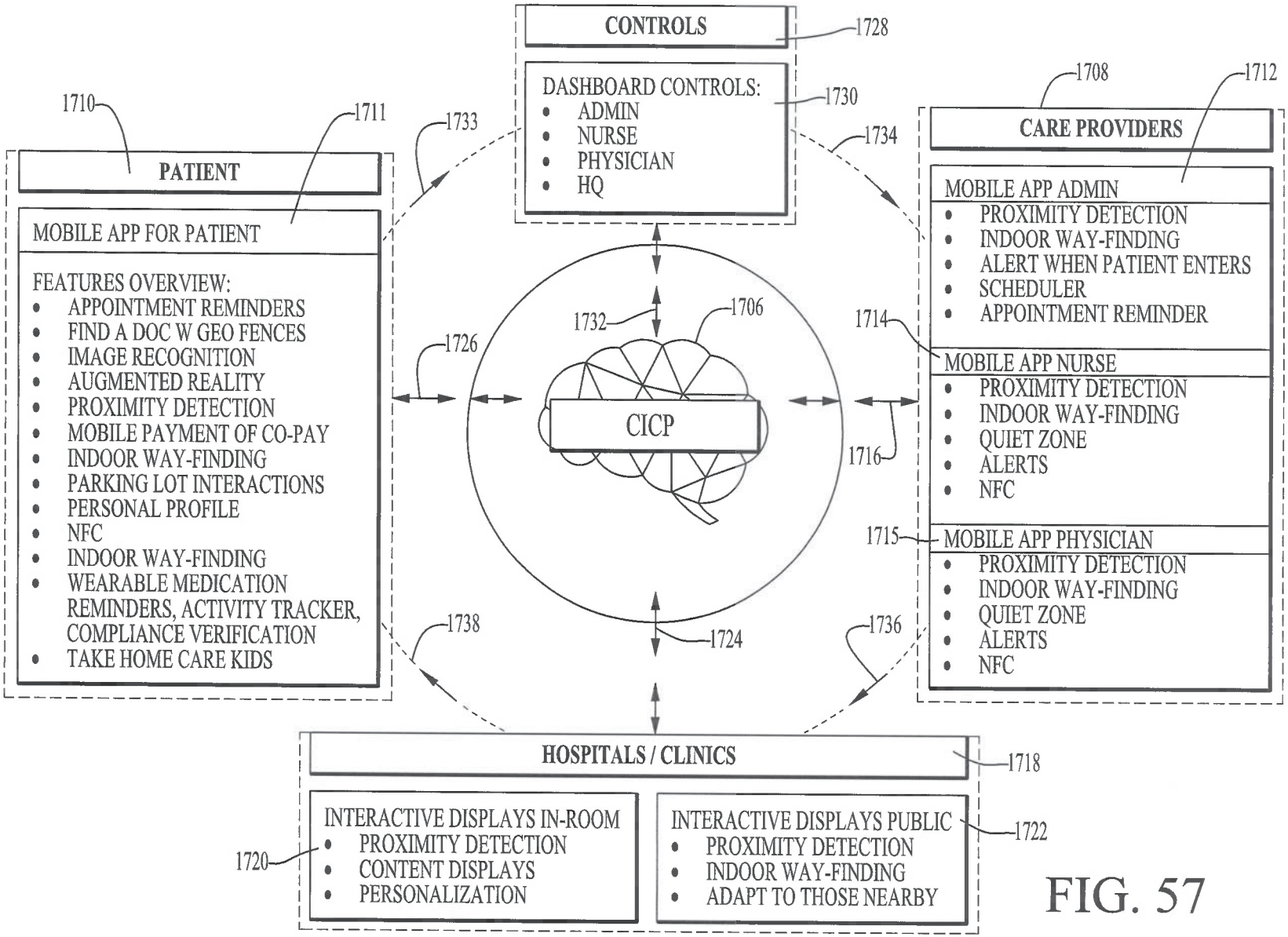

CONTROLS
1728
DASHBOARD CONTROLS:
ADMIN
NURSE
PHYSICIAN
HQ
1730
1710
1711
1733
1734
1708
1712
PATIENT
MOBILE APP FOR PATIENT
FEATURES OVERVIEW:
APPOINTMENT REMINDERS
FIND A DOC W GEO FENCES
IMAGE RECOGNITION
AUGMENTED REALITY
PROXIMITY DETECTION
MOBILE PAYMENT OF CO-PAY
INDOOR WAY-FINDING
PARKING LOT INTERACTIONS
PERSONAL PROFILE
NFC
INDOOR WAY-FINDING
WEARABLE MEDICATION REMINDERS, ACTIVITY TRACKER, COMPLIANCE VERIFICATION
TAKE HOME CARE KIDS
CARE PROVIDERS
MOBILE APP ADMIN
PROXIMITY DETECTION
INDOOR WAY-FINDING
ALERT WHEN PATIENT ENTERS
SCHEDULER
APPOINTMENT REMINDER
1732
1706
1726
1714
CICP
MOBILE APP NURSE
PROXIMITY DETECTION
INDOOR WAY-FINDING
QUIET ZONE
ALERTS
NFC
1716
1715
MOBILE APP PHYSICIAN
PROXIMITY DETECTION
INDOOR WAY-FINDING
QUIET ZONE
ALERTS
NFC
1738
1724
1736
HOSPITALS / CLINICS
1718
INTERACTIVE DISPLAYS IN-ROOM
PROXIMITY DETECTION
CONTENT DISPLAYS
PERSONALIZATION
1720
INTERACTIVE DISPLAYS PUBLIC
PROXIMITY DETECTION
INDOOR WAY-FINDING
ADAPT TO THOSE NEARBY
1722

FIG. 57

FIG. 58A	FIG. 58B

FIG. 58

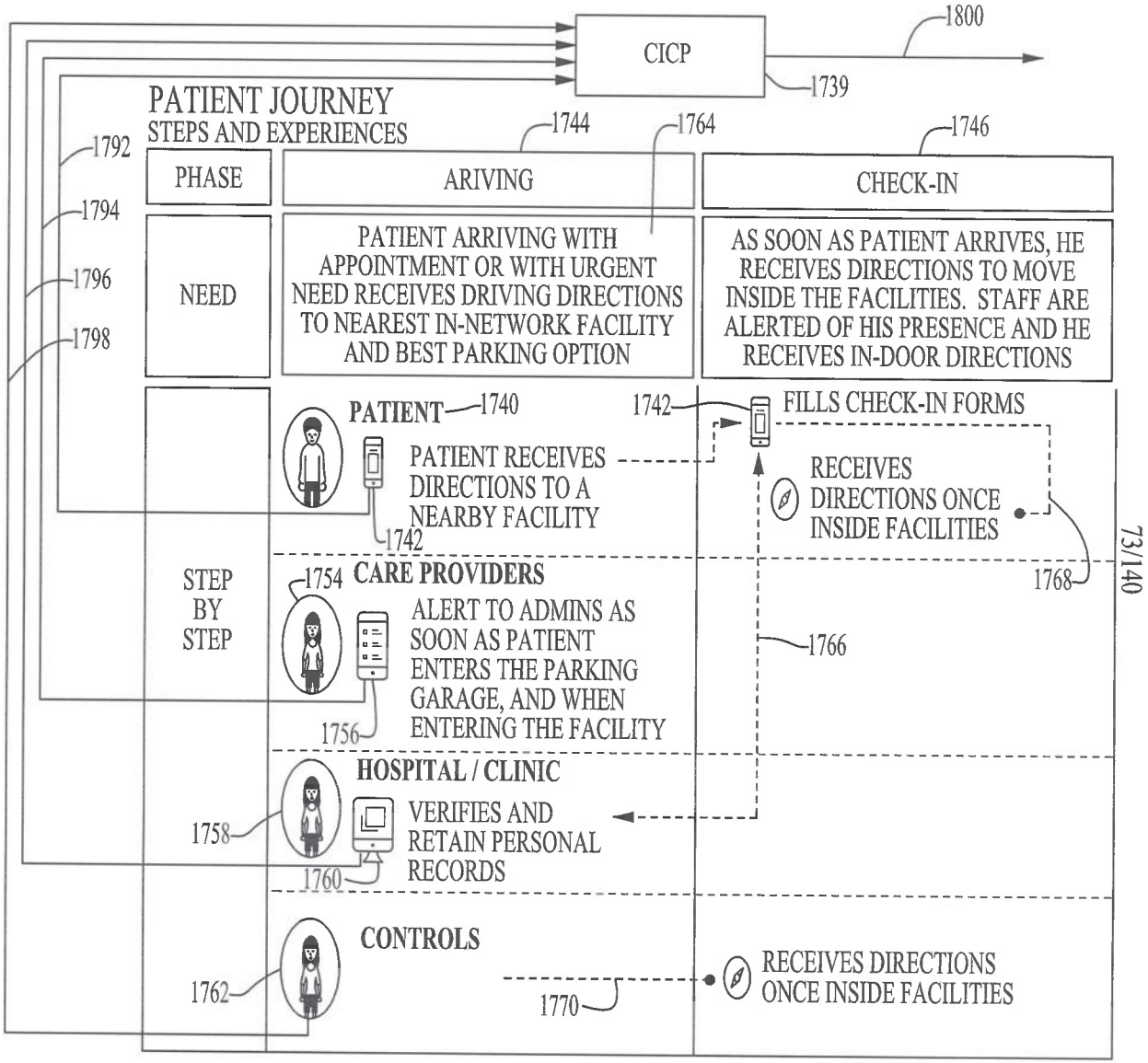


FIG. 58A

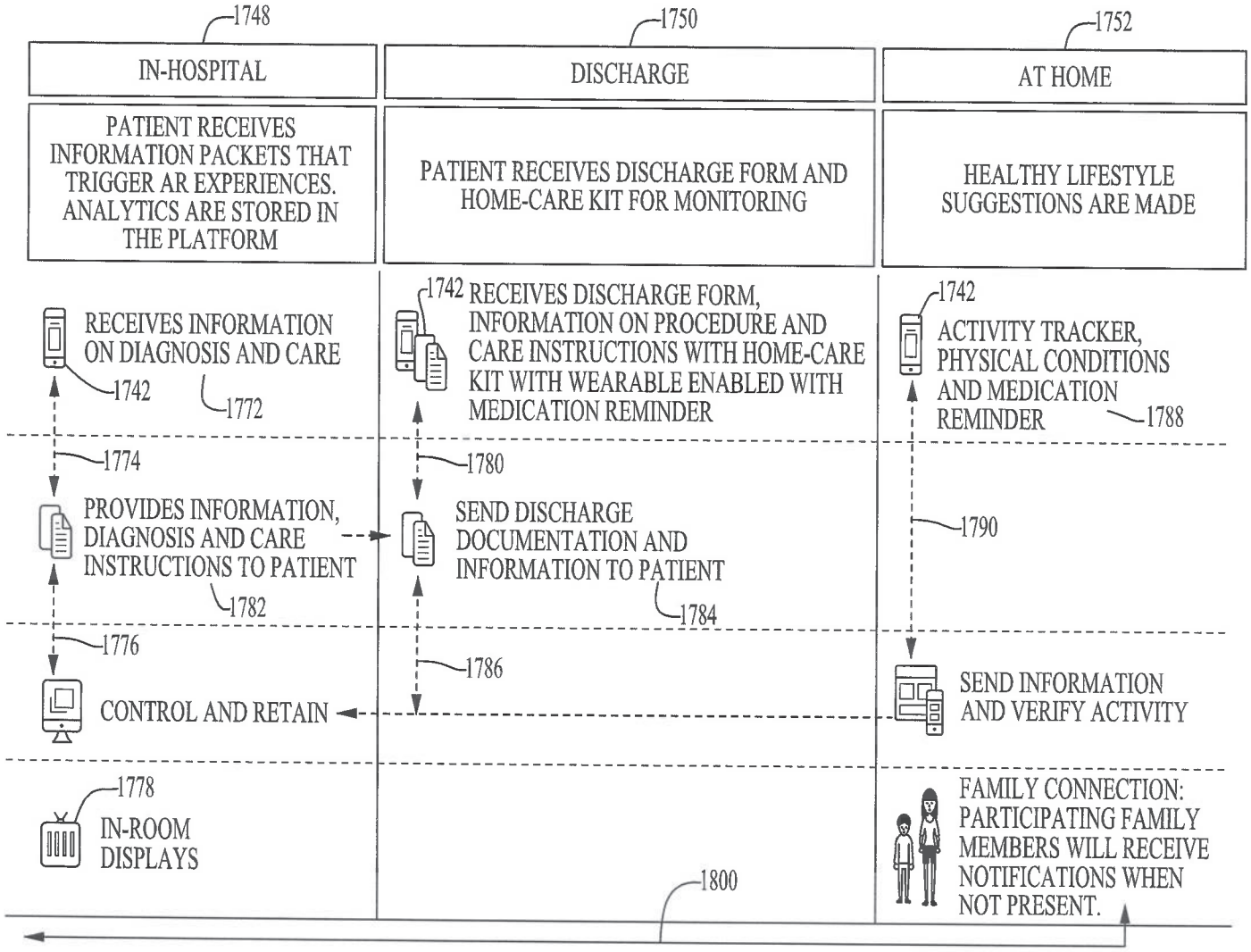

1748
IN-HOSPITAL
1750
DISCHARGE
1752
AT HOME
PATIENT RECEIVES INFORMATION PACKETS THAT TRIGGER AR EXPERIENCES. ANALYTICS ARE STORED IN THE PLATFORM
PATIENT RECEIVES DISCHARGE FORM AND HOME-CARE KIT FOR MONITORING
HEALTHY LIFESTYLE SUGGESTIONS ARE MADE
RECEIVES INFORMATION ON DIAGNOSIS AND CARE
1742
1772
1742
RECEIVES DISCHARGE FORM, INFORMATION ON PROCEDURE AND CARE INSTRUCTIONS WITH HOME-CARE KIT WITH WEARABLE ENABLED WITH MEDICATION REMINDER
1742
ACTIVITY TRACKER, PHYSICAL CONDITIONS AND MEDICATION REMINDER
1788
1774
PROVIDES INFORMATION, DIAGNOSIS AND CARE INSTRUCTIONS TO PATIENT
1782
1780
SEND DISCHARGE DOCUMENTATION AND INFORMATION TO PATIENT
1784
1790
1776
CONTROL AND RETAIN
1786
SEND INFORMATION AND VERIFY ACTIVITY
1778
IN-ROOM DISPLAYS
FAMILY CONNECTION: PARTICIPATING FAMILY MEMBERS WILL RECEIVE NOTIFICATIONS WHEN NOT PRESENT.
1800

FIG. 58B

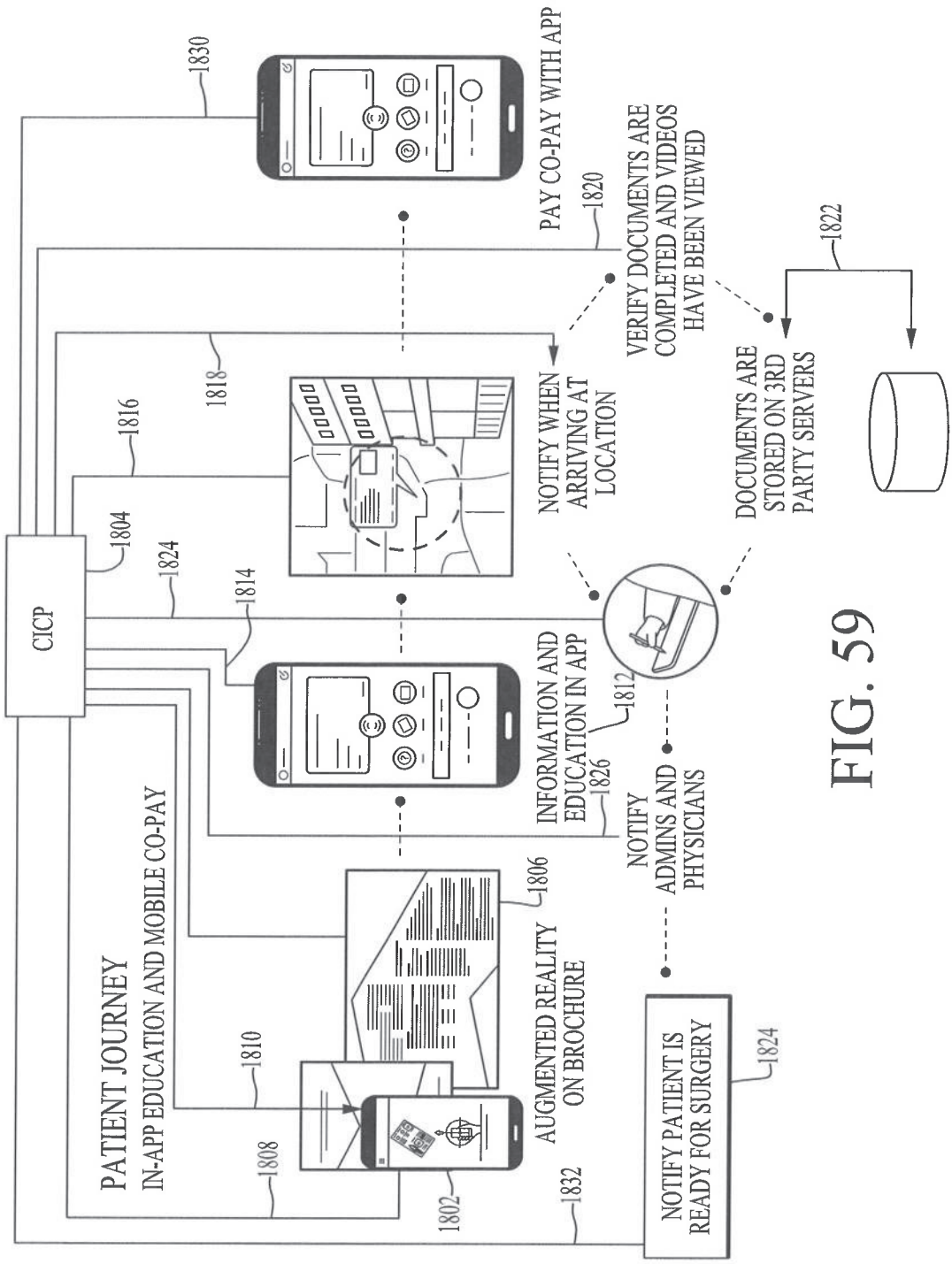

PATIENT JOURNEY
IN-APP EDUCATION AND MOBILE CO-PAY
CICP
1804
1824
1814
1816
1818
1830
1820
1822
1812
1826
1806
1810
1808
1802
1832
1824
PAY CO-PAY WITH APP
VERIFY DOCUMENTS ARE COMPLETED AND VIDEOS HAVE BEEN VIEWED
NOTIFY WHEN ARRIVING AT LOCATION
DOCUMENTS ARE STORED ON 3RD PARTY SERVERS
INFORMATION AND EDUCATION IN APP
NOTIFY ADMINS AND PHYSICIANS
AUGMENTED REALITY ON BROCHURE
NOTIFY PATIENT IS READY FOR SURGERY

FIG. 59

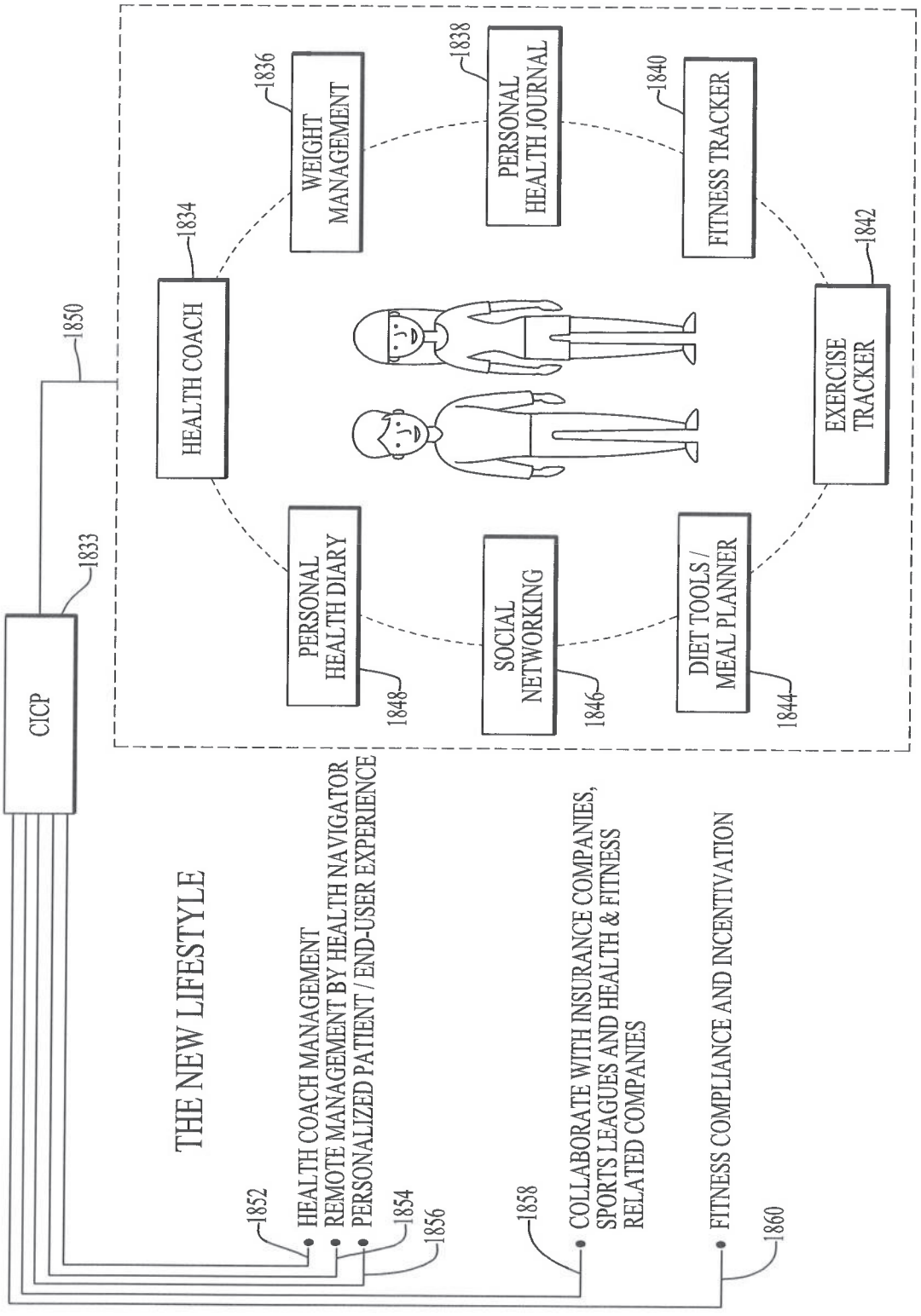

CICP
1833
1850
THE NEW LIFESTYLE
1852
HEALTH COACH MANAGEMENT
REMOTE MANAGEMENT BY HEALTH NAVIGATOR
1854
PERSONALIZED PATIENT / END-USER EXPERIENCE
1856
1858
COLLABORATE WITH INSURANCE COMPANIES,
SPORTS LEAGUES AND HEALTH & FITNESS
RELATED COMPANIES
FITNESS COMPLIANCE AND INCENTIVATION
1860
HEALTH COACH
1834
WEIGHT MANAGEMENT
1836
PERSONAL HEALTH JOURNAL
1838
FITNESS TRACKER
1840
EXERCISE TRACKER
1842
PERSONAL HEALTH DIARY
1848
SOCIAL NETWORKING
1846
DIET TOOLS / MEAL PLANNER
1844

FIG. 60

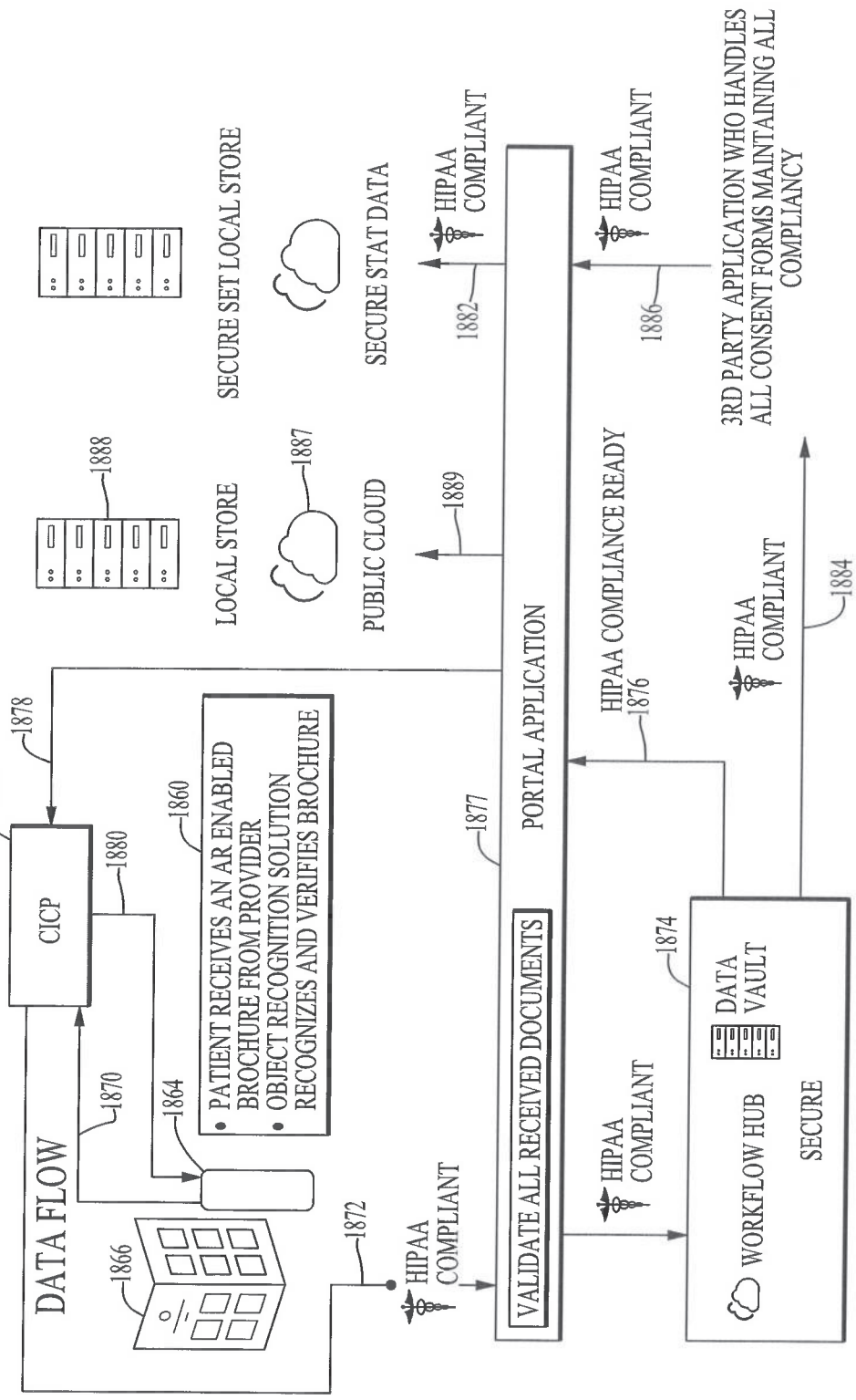

DATA FLOW
1862
CICP
1878
1880
1870
1872
1866
1860
1864
• PATIENT RECEIVES AN AR ENABLED BROCHURE FROM PROVIDER
• OBJECT RECOGNITION SOLUTION RECOGNIZES AND VERIFIES BROCHURE
HIPAA COMPLIANT
1877
VALIDATE ALL RECEIVED DOCUMENTS
PORTAL APPLICATION
HIPAA COMPLIANCE READY
1876
HIPAA COMPLIANT
1874
WORKFLOW HUB
DATA VAULT
SECURE
HIPAA COMPLIANT
1884
3RD PARTY APPLICATION WHO HANDLES ALL CONSENT FORMS MAINTAINING ALL COMPLIANCY
1886
HIPAA COMPLIANT
1882
1889
PUBLIC CLOUD
1887
SECURE STAT DATA
LOCAL STORE
1888
SECURE SET LOCAL STORE

FIG. 61

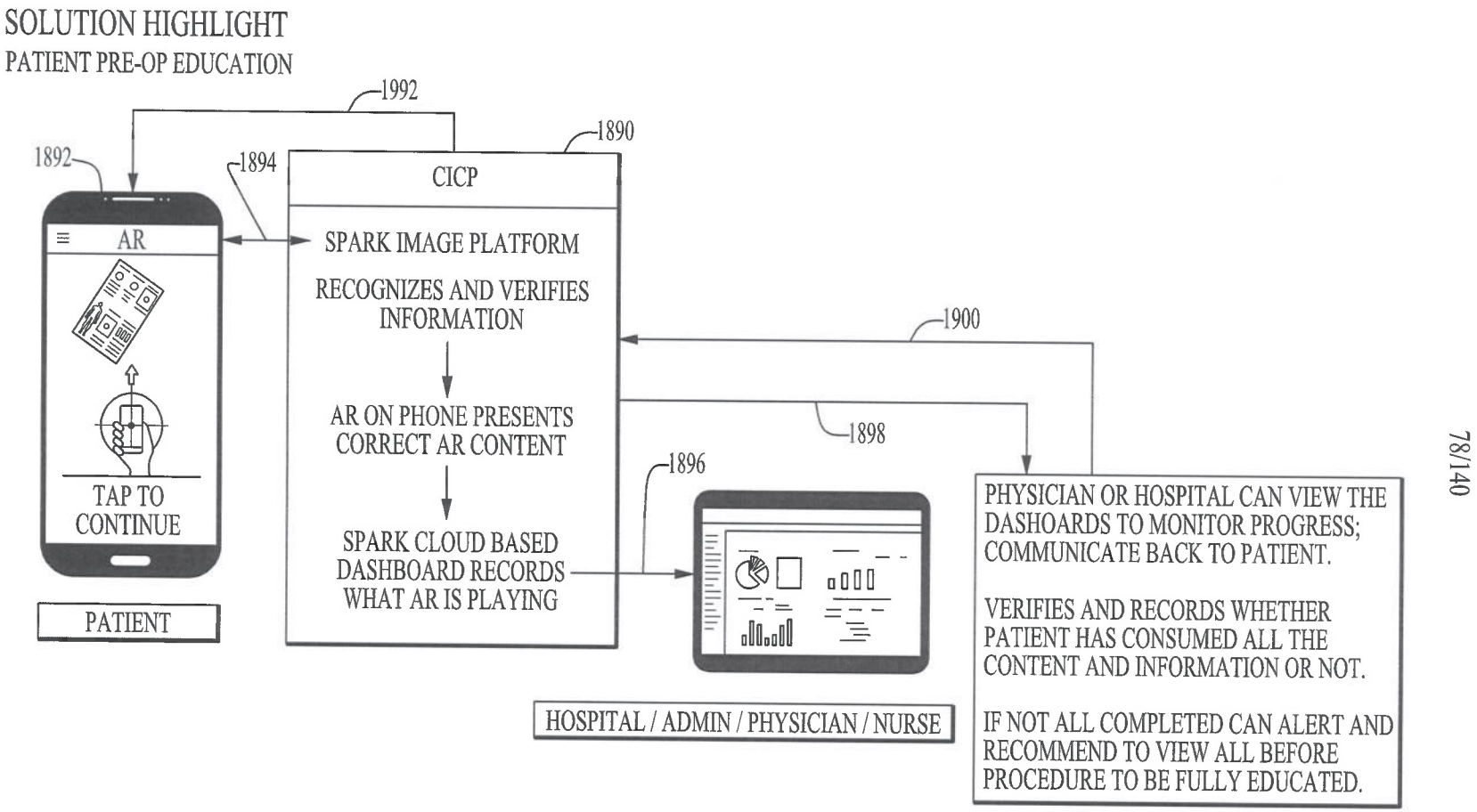

SOLUTION HIGHLIGHT
PATIENT PRE-OP EDUCATION
1992
1890
1892
1894
CICP
AR
SPARK IMAGE PLATFORM
RECOGNIZES AND VERIFIES INFORMATION
1900
AR ON PHONE PRESENTS CORRECT AR CONTENT
1898
1896
TAP TO CONTINUE
SPARK CLOUD BASED DASHBOARD RECORDS WHAT AR IS PLAYING
PHYSICIAN OR HOSPITAL CAN VIEW THE DASHOARDS TO MONITOR PROGRESS; COMMUNICATE BACK TO PATIENT.
VERIFIES AND RECORDS WHETHER PATIENT HAS CONSUMED ALL THE CONTENT AND INFORMATION OR NOT.
IF NOT ALL COMPLETED CAN ALERT AND RECOMMEND TO VIEW ALL BEFORE PROCEDURE TO BE FULLY EDUCATED.
PATIENT
HOSPITAL / ADMIN / PHYSICIAN / NURSE

FIG. 62

PATIENT PRE-OP DOCUMENTS

CONSENT FORM VERIFICATION

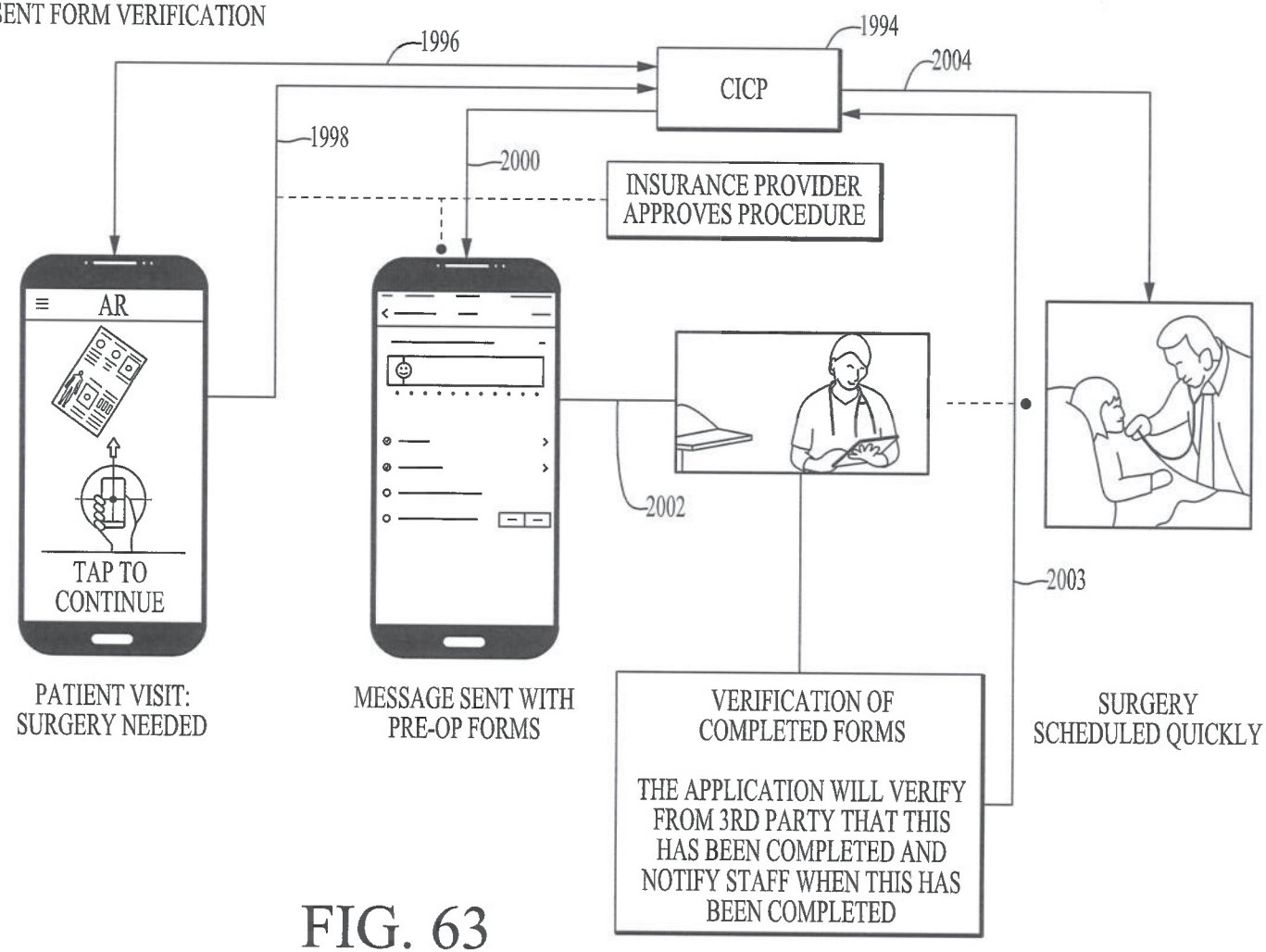


FIG. 63

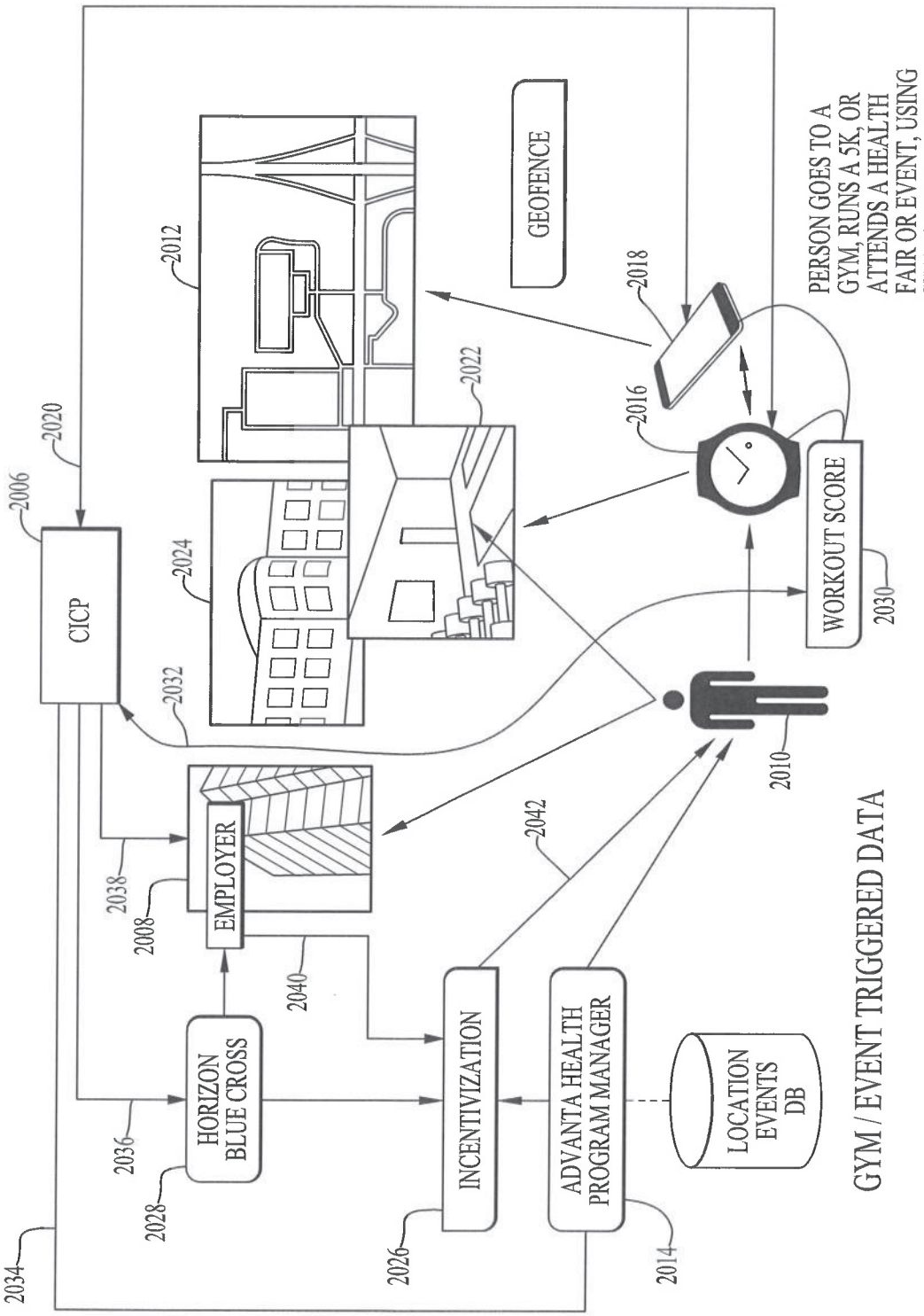

GYM / EVENT TRIGGERED DATA
CICP
2006
2020
2034
HORIZON BLUE CROSS
2028
2036
EMPLOYER
2008
2038
2040
INCENTIVIZATION
2026
ADVANTA HEALTH PROGRAM MANAGER
2014
LOCATION EVENTS DB
2042
2010
2032
2012
2024
2022
GEOFENCE
2018
2016
WORKOUT SCORE
2030
PERSON GOES TO A GYM, RUNS A 5K, OR ATTENDS A HEALTH FAIR OR EVENT, USING STAIRS INSTEAD OF ELEVATOR

FIG. 64

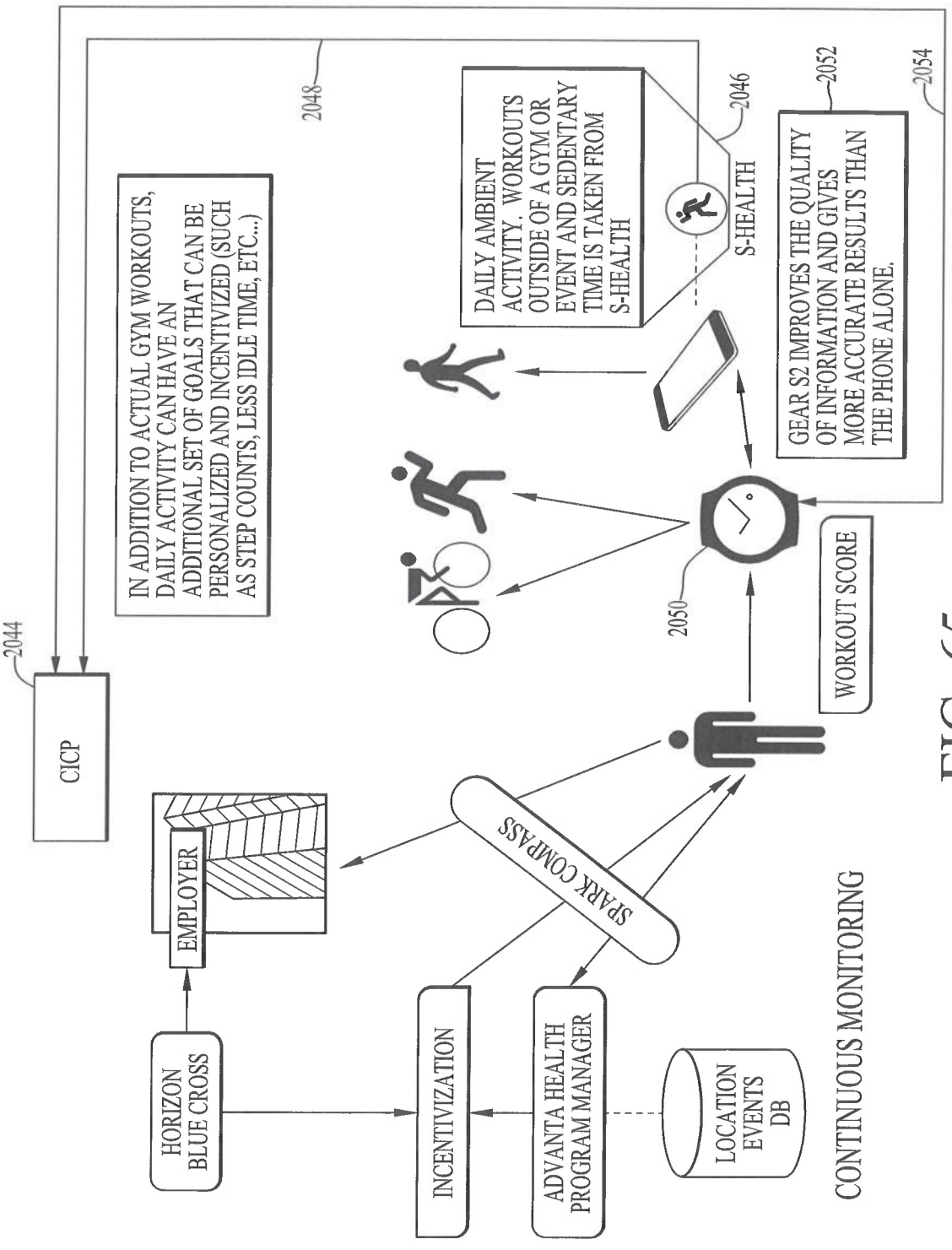

2044
CICP
IN ADDITION TO ACTUAL GYM WORKOUTS, DAILY ACTIVITY CAN HAVE AN ADDITIONAL SET OF GOALS THAT CAN BE PERSONALIZED AND INCENTIVIZED (SUCH AS STEP COUNTS, LESS IDLE TIME, ETC...)
2048
DAILY AMBIENT ACTIVITY. WORKOUTS OUTSIDE OF A GYM OR EVENT AND SEDENTARY TIME IS TAKEN FROM S-HEALTH
2046
S-HEALTH
2052
GEAR S2 IMPROVES THE QUALITY OF INFORMATION AND GIVES MORE ACCURATE RESULTS THAN THE PHONE ALONE.
2054
2050
WORKOUT SCORE
EMPLOYER
SPARK COMPASS
HORIZON BLUE CROSS
INCENTIVIZATION
ADVANTA HEALTH PROGRAM MANAGER
LOCATION EVENTS DB
CONTINUOUS MONITORING

FIG. 65

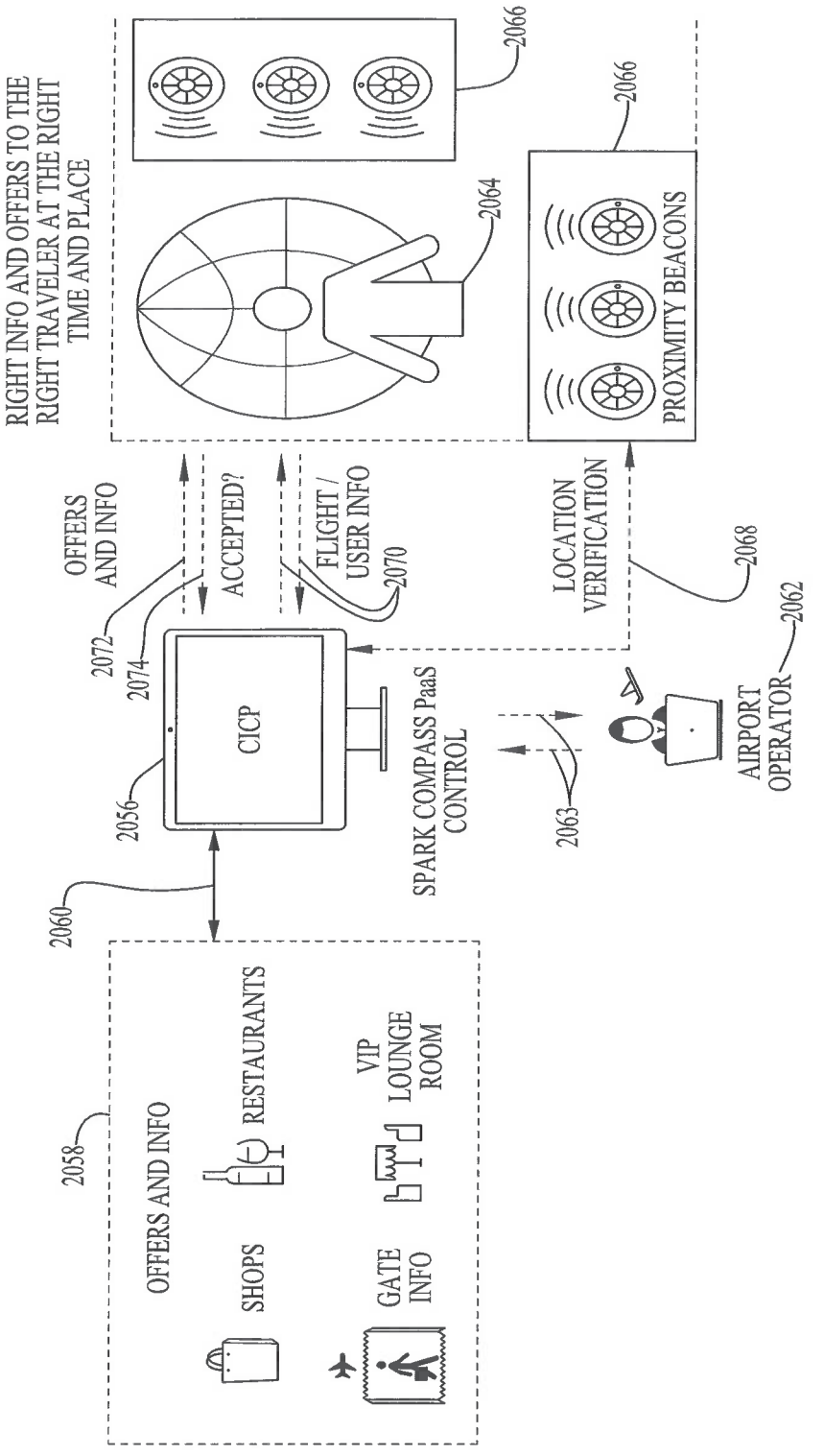

RIGHT INFO AND OFFERS TO THE RIGHT TRAVELER AT THE RIGHT TIME AND PLACE
2066
2064
2066
PROXIMITY BEACONS
OFFERS AND INFO
2072
ACCEPTED?
2074
FLIGHT / USER INFO
2070
LOCATION VERIFICATION
2068
2056
CICP
SPARK COMPASS PaaS CONTROL
2063
AIRPORT OPERATOR
2062
2060
2058
OFFERS AND INFO
SHOPS
RESTAURANTS
GATE INFO
VIP LOUNGE ROOM

FIG. 66

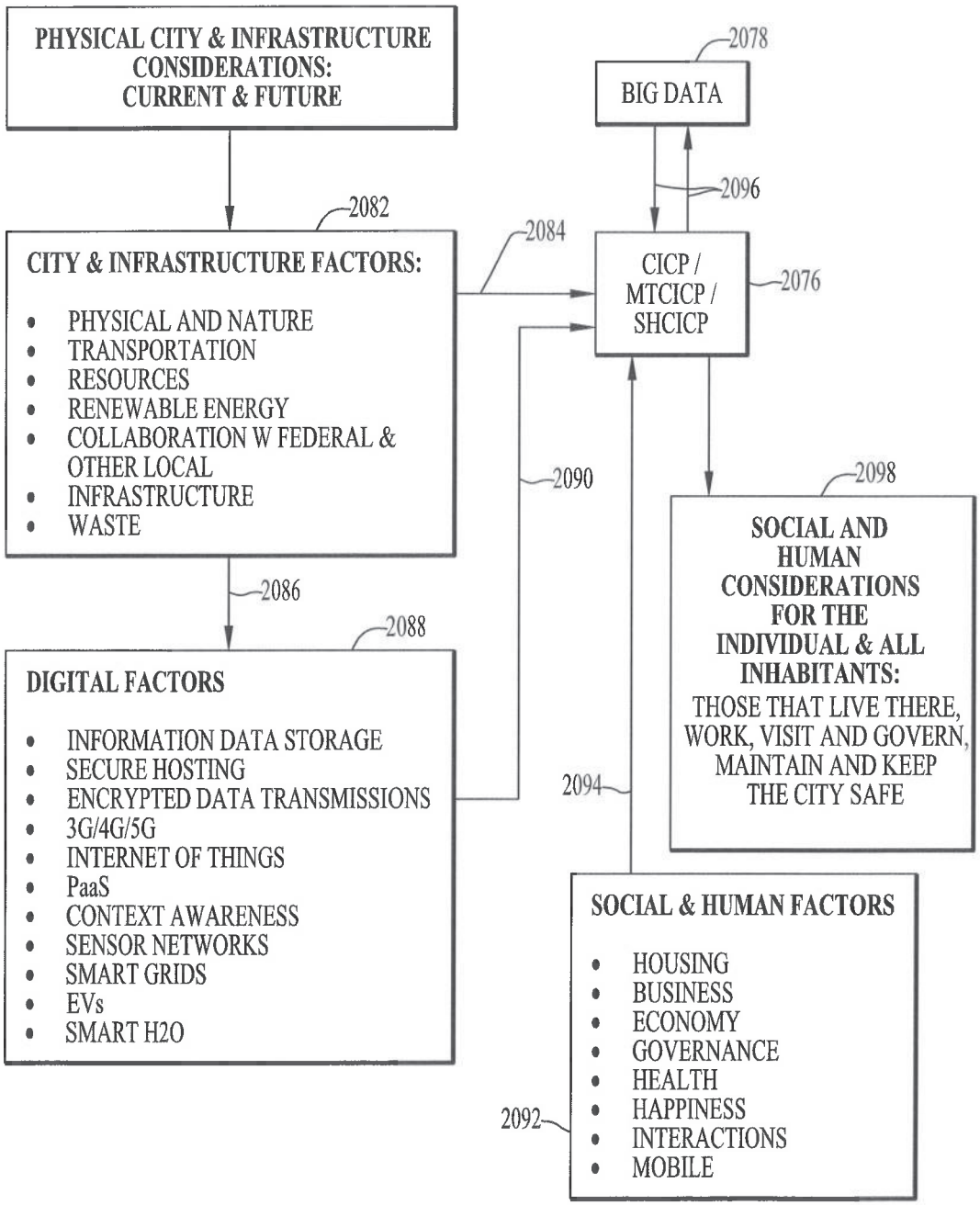

PHYSICAL CITY & INFRASTRUCTURE CONSIDERATIONS: CURRENT & FUTURE
2078
BIG DATA
2096
2082
2084
CITY & INFRASTRUCTURE FACTORS:
• PHYSICAL AND NATURE
• TRANSPORTATION
• RESOURCES
• RENEWABLE ENERGY
• COLLABORATION W FEDERAL & OTHER LOCAL
• INFRASTRUCTURE
• WASTE
CICP / MTCICP / SHCICP
2076
2090
2098
SOCIAL AND HUMAN CONSIDERATIONS FOR THE INDIVIDUAL & ALL INHABITANTS: THOSE THAT LIVE THERE, WORK, VISIT AND GOVERN, MAINTAIN AND KEEP THE CITY SAFE
2086
2088
DIGITAL FACTORS
• INFORMATION DATA STORAGE
• SECURE HOSTING
• ENCRYPTED DATA TRANSMISSIONS
• 3G/4G/5G
• INTERNET OF THINGS
• PaaS
• CONTEXT AWARENESS
• SENSOR NETWORKS
• SMART GRIDS
• EVs
• SMART H2O
2094
SOCIAL & HUMAN FACTORS
• HOUSING
• BUSINESS
• ECONOMY
• GOVERNANCE
• HEALTH
• HAPPINESS
• INTERACTIONS
• MOBILE
2092

FIG. 67

FIG. 68A	FIG. 68B	FIG. 68C

FIG. 68

2102

2104

GOVERNMENT SOLUTION

WE NEED TO KNOW	HOW DO WE FIND OUT?
ARE CITIZENS HAPPY?	POLLS AND QUIZZES
WHAT DO THEY NEED?	PARTICIPATION APPS
DO THEY AGREE WITH OUR PROJECTS?	SENSORS FOR WATER USAGE
CAN WE SAVE MONEY?	CO2 SENSORS – TRAFFIC OPTIMIZATION
CAN WE BE MORE SUSTAINABLE?	CITIZEN EMERGENCY APPS
CAN WE LIVE SAVER?	MAINTENANCE APPS

HOSPITALITY SOLUTION

2120

WE NEED TO KNOW	HOW DO WE FIND OUT?
WHEN DO THEY ARRIVE?	PROXIMITY BEACONS
HOW CAN I UPSELL?	UPSELLING TOOLS
DO THEY SHARE?	CRM AND SOCIAL TOOLS
DO THEY EXPERIENCE?	GEO-FENCING
WHERE DO THEY GO?	POLLS & QUESTIONNAIRES
HOW DO THEY FEEL?	

2118

RETAIL SOLUTION

2138

WE NEED TO KNOW	HOW DO WE FIND OUT?
WHEN DO THEY ARRIVE?	PROXIMITY BEACONS
HOW CAN I UPSELL?	UPSELLING TOOLS
DO THEY SHARE?	CRM AND SOCIAL TOOLS
DO THEY EXPERIENCE?	GEO-FENCING
WHERE DO THEY GO?	POLLS & QUESTIONNAIRES
HOW DO THEY FEEL?	

2134

FIG. 68A

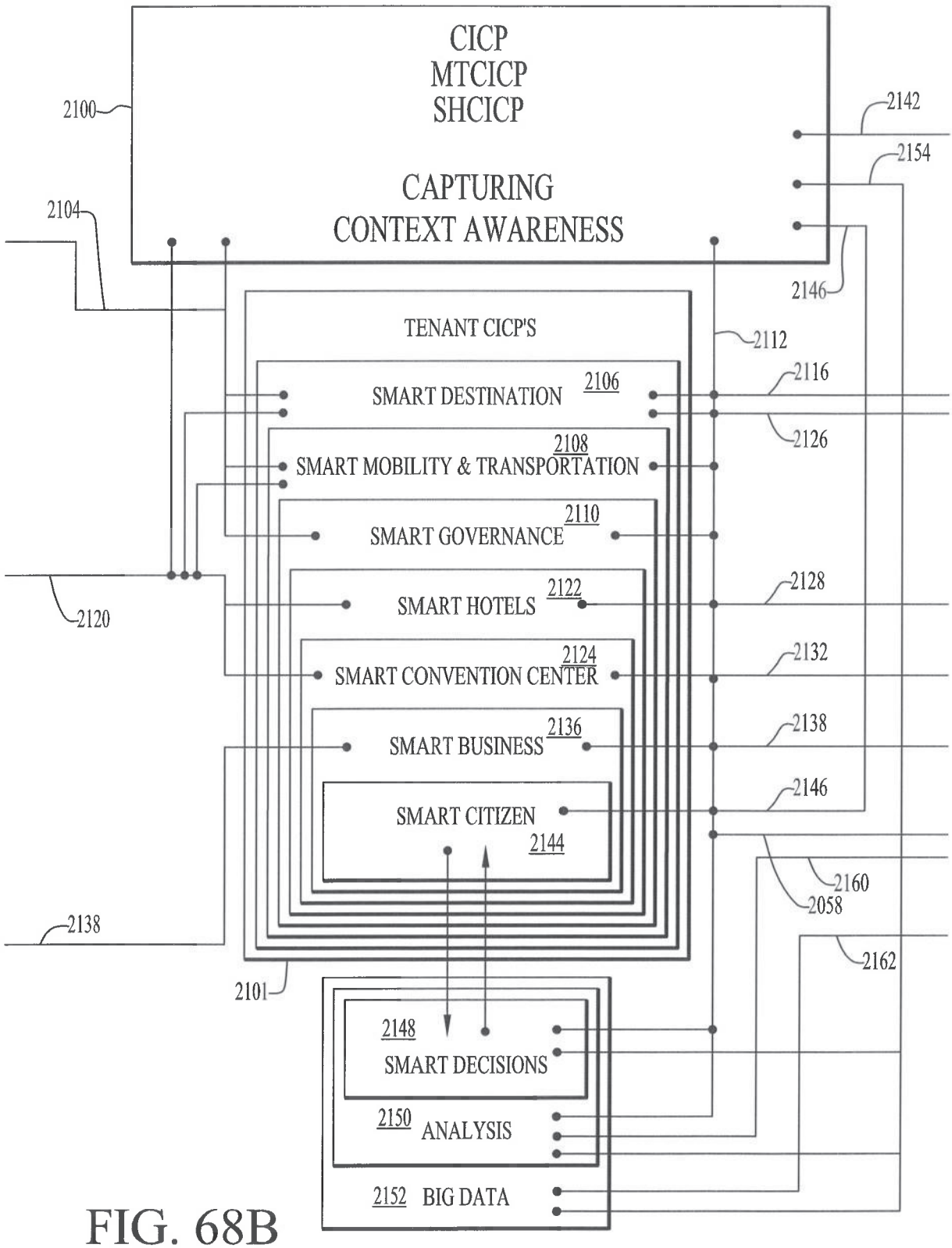
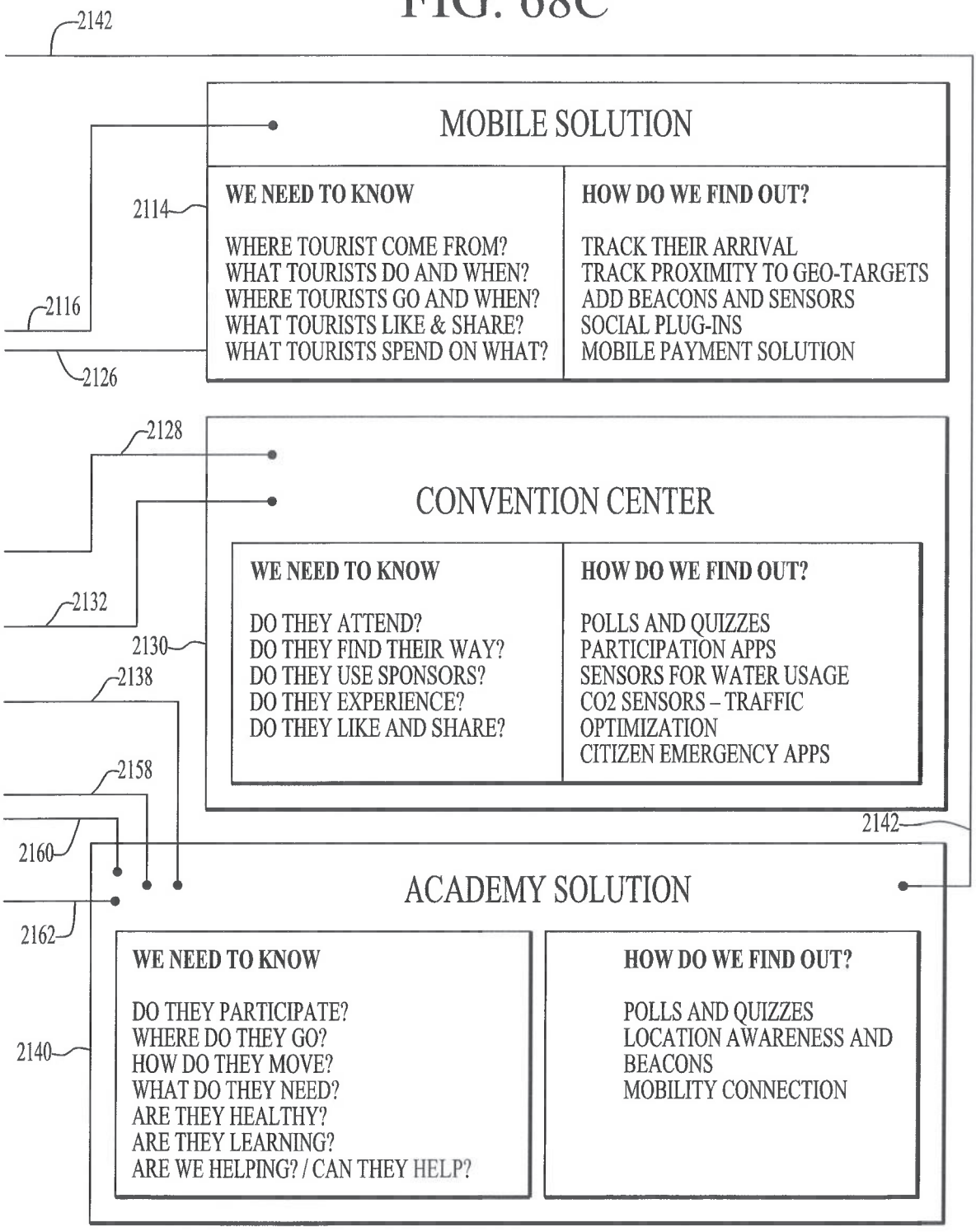

CICP
MTCICP
SHCICP
CAPTURING
CONTEXT AWARENESS
2100
2104
2142
2154
2146
TENANT CICP'S
2112
SMART DESTINATION
2106
2116
2126
2108
SMART MOBILITY & TRANSPORTATION
2110
SMART GOVERNANCE
2120
2122
SMART HOTELS
2128
2124
SMART CONVENTION CENTER
2132
2136
SMART BUSINESS
2138
SMART CITIZEN
2144
2146
2160
2058
2138
2162
2101
2148
SMART DECISIONS
2150
ANALYSIS
2152
BIG DATA

FIG. 68B

FIG. 68C


2142
MOBILE SOLUTION
2114
WE NEED TO KNOW
WHERE TOURIST COME FROM?
WHAT TOURISTS DO AND WHEN?
WHERE TOURISTS GO AND WHEN?
WHAT TOURISTS LIKE & SHARE?
WHAT TOURISTS SPEND ON WHAT?
HOW DO WE FIND OUT?
TRACK THEIR ARRIVAL
TRACK PROXIMITY TO GEO-TARGETS
ADD BEACONS AND SENSORS
SOCIAL PLUG-INS
MOBILE PAYMENT SOLUTION
2116
2126
2128
2132
CONVENTION CENTER
2130
WE NEED TO KNOW
DO THEY ATTEND?
DO THEY FIND THEIR WAY?
DO THEY USE SPONSORS?
DO THEY EXPERIENCE?
DO THEY LIKE AND SHARE?
HOW DO WE FIND OUT?
POLLS AND QUIZZES
PARTICIPATION APPS
SENSORS FOR WATER USAGE
CO2 SENSORS – TRAFFIC OPTIMIZATION
CITIZEN EMERGENCY APPS
2138
2158
2142
2160
ACADEMY SOLUTION
2162
2140
WE NEED TO KNOW
DO THEY PARTICIPATE?
WHERE DO THEY GO?
HOW DO THEY MOVE?
WHAT DO THEY NEED?
ARE THEY HEALTHY?
ARE THEY LEARNING?
ARE WE HELPING? / CAN THEY HELP?
HOW DO WE FIND OUT?
POLLS AND QUIZZES
LOCATION AWARENESS AND BEACONS
MOBILITY CONNECTION

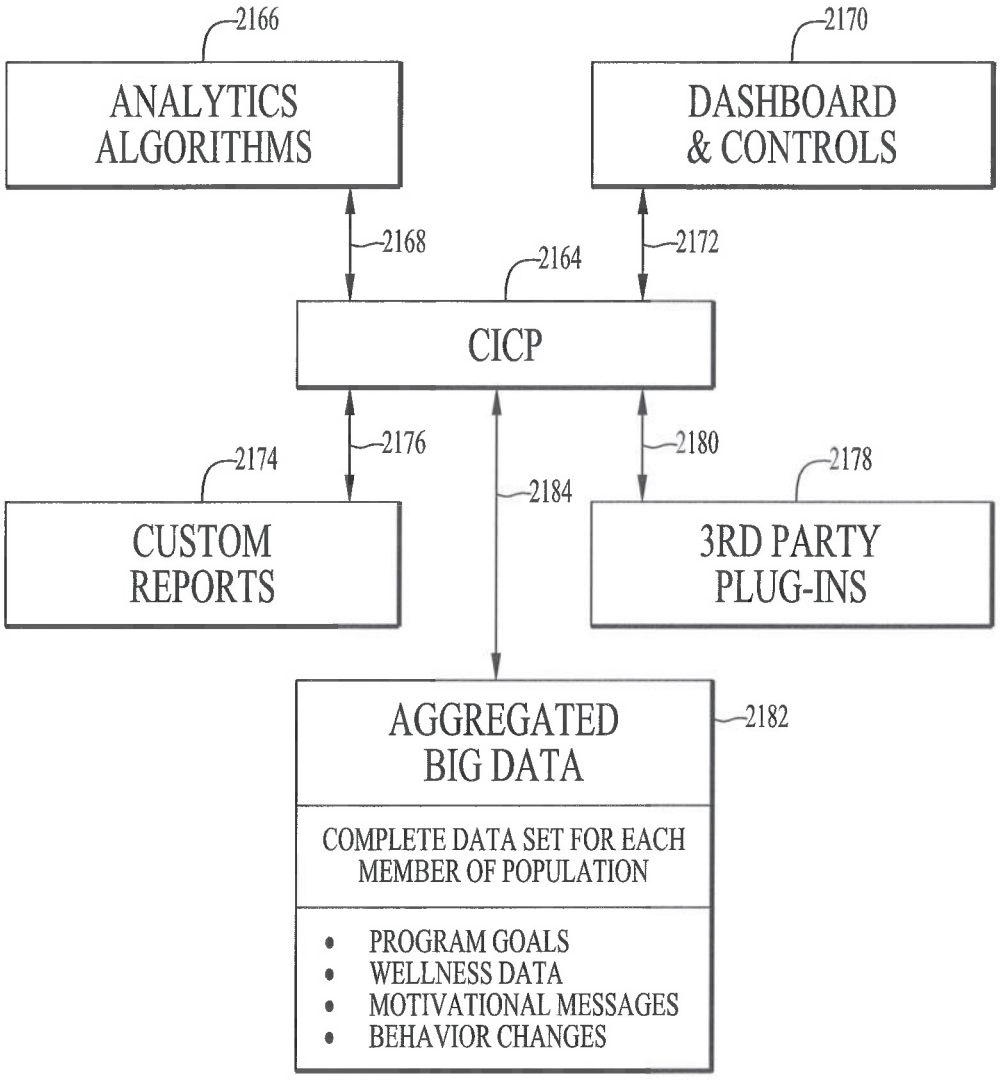

2166
ANALYTICS ALGORITHMS
2170
DASHBOARD & CONTROLS
2168
2164
2172
CICP
2176
2180
2174
2178
2184
CUSTOM REPORTS
3RD PARTY PLUG-INS
AGGREGATED BIG DATA
2182
COMPLETE DATA SET FOR EACH MEMBER OF POPULATION
• PROGRAM GOALS
• WELLNESS DATA
• MOTIVATIONAL MESSAGES
• BEHAVIOR CHANGES

FIG. 69

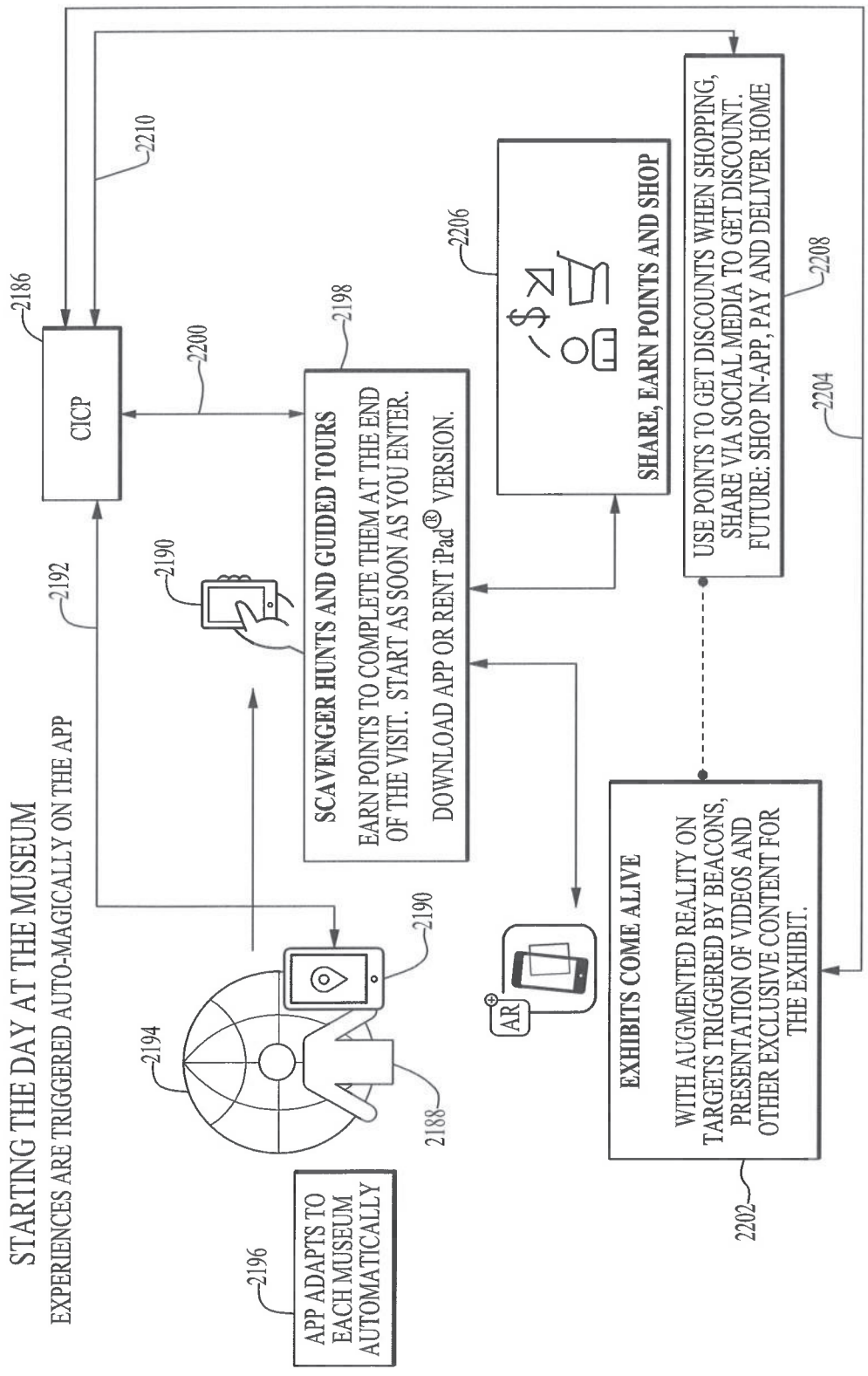

STARTING THE DAY AT THE MUSEUM
EXPERIENCES ARE TRIGGERED AUTO-MAGICALLY ON THE APP
2186
CICP
2210
2200
2198
SCAVENGER HUNTS AND GUIDED TOURS
EARN POINTS TO COMPLETE THEM AT THE END OF THE VISIT. START AS SOON AS YOU ENTER.
DOWNLOAD APP OR RENT iPad® VERSION.
2206
SHARE, EARN POINTS AND SHOP
2208
USE POINTS TO GET DISCOUNTS WHEN SHOPPING, SHARE VIA SOCIAL MEDIA TO GET DISCOUNT. FUTURE: SHOP IN-APP, PAY AND DELIVER HOME
2204
2192
2190
2190
2194
2188
AR
EXHIBITS COME ALIVE
WITH AUGMENTED REALITY ON TARGETS TRIGGERED BY BEACONS, PRESENTATION OF VIDEOS AND OTHER EXCLUSIVE CONTENT FOR THE EXHIBIT.
2202
2196
APP ADAPTS TO EACH MUSEUM AUTOMATICALLY

FIG. 70

DYNAMIC AND AUTOMATIC PAYMENTS
AUTOMATIC DETECTION OF ENTRY & EXIT

TRAVELERS WANTING A STREAM-LINED VIP JOURNEY CAN DOWNLOAD THE VIP APP ON THEIR SMART PHONE OR WEARABLE.

THIS GRANTS ACCESS TO A SPECIFIC AREAS THAT ARE CONTROLLED VIA SECURE PROXIMITY BEACONS AND / OR NFC.

ONCE ON THE SELECT VIP SECTIONS OR THE TRAIN, PRESENCE IS AUTOMATICALLY DETECTED WITH SECURE PROXIMITY BEACONS IN THE CARRIAGE.

ONCE EXITING THE CARRIAGE, THE PROXIMITY IS BROKEN AND THE JOURNEY HAS ENDED.

A CHARGE FOR THE ACTUAL JOURNEY TRAVELED CAN THEN BE ASSESSED TO THE CONNECTED DEVICE.

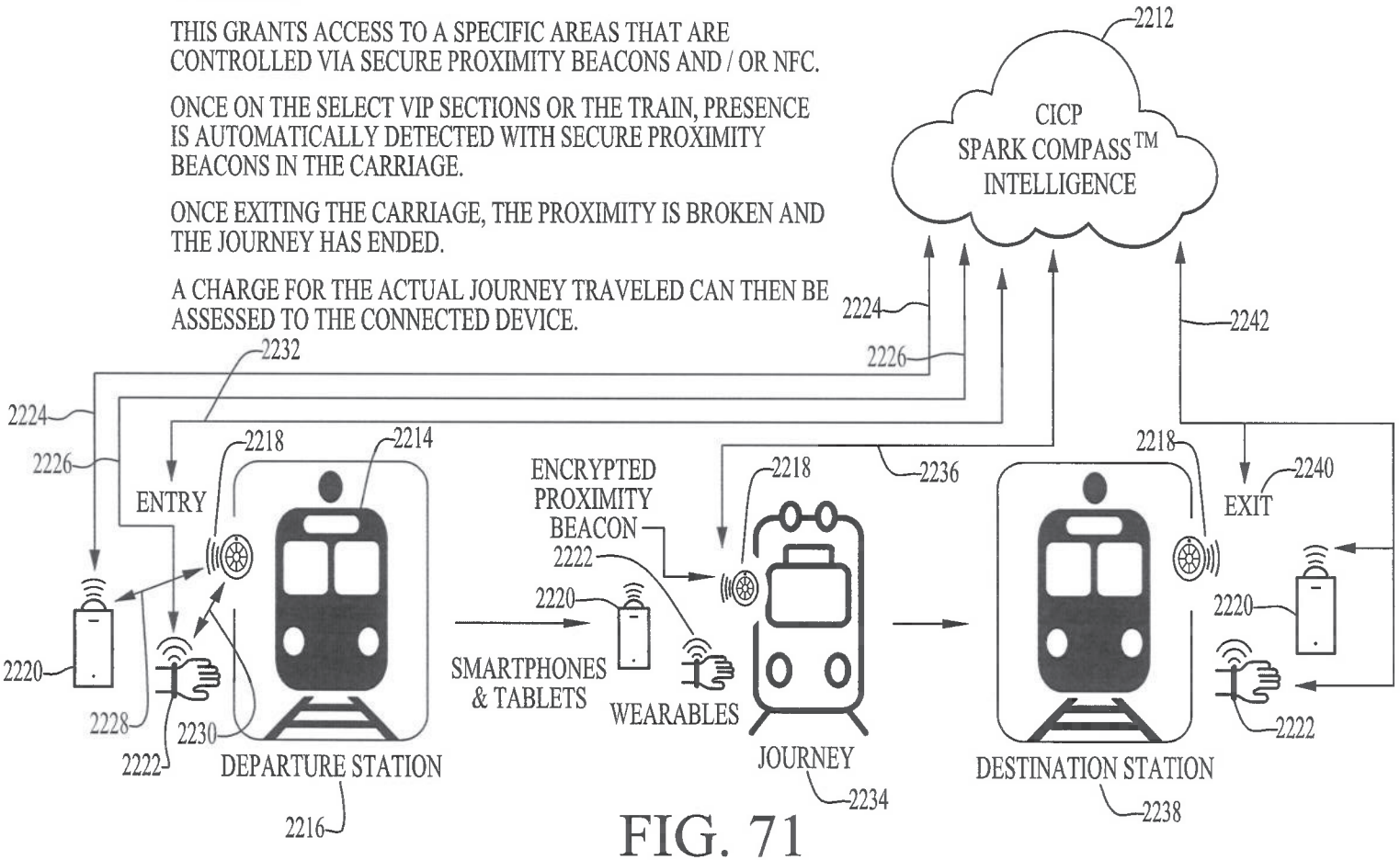


FIG. 71

FIG. 72A

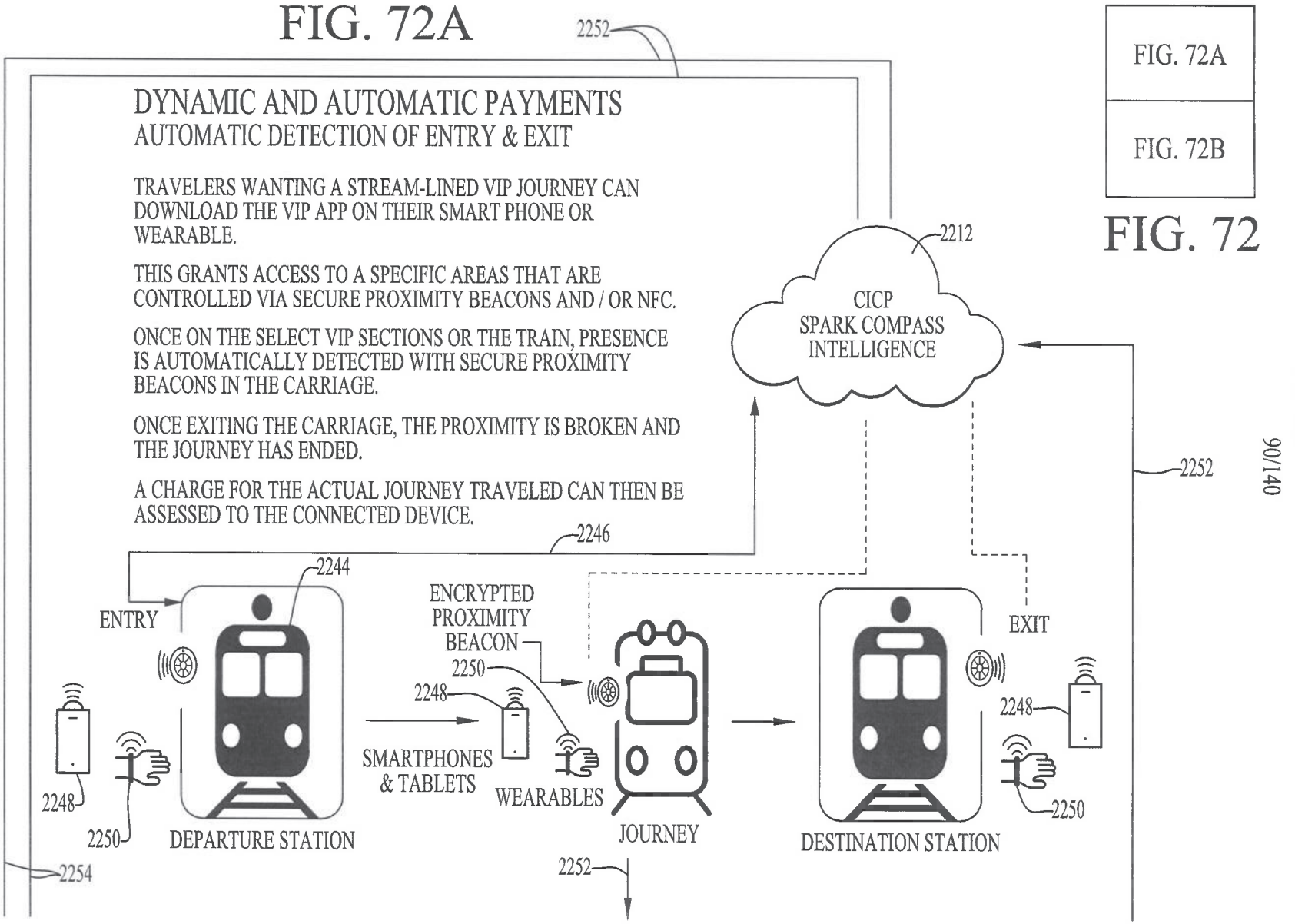


FIG. 72A
FIG. 72B

FIG. 72

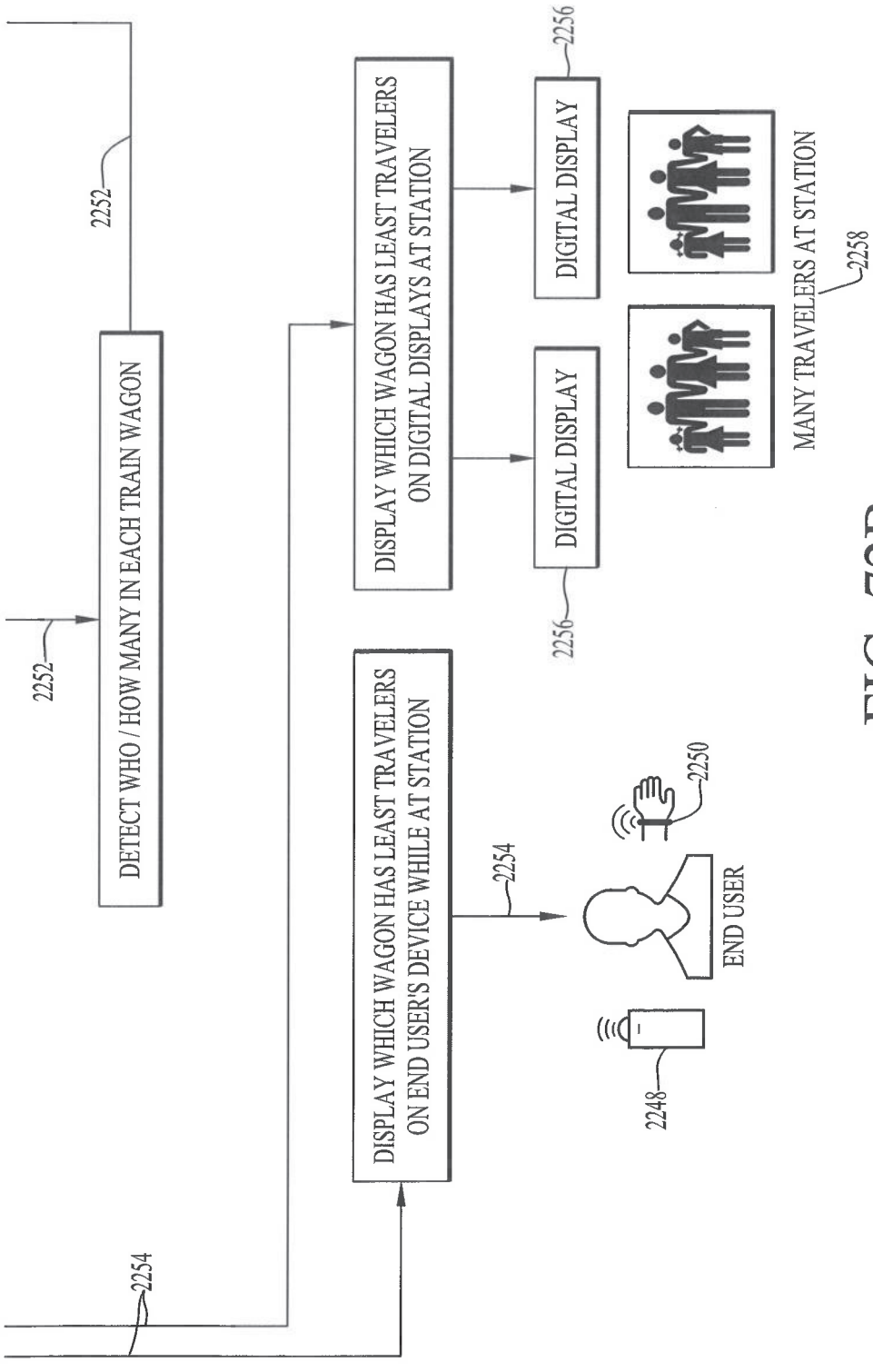

2252
DETECT WHO / HOW MANY IN EACH TRAIN WAGON
2252
2254
DISPLAY WHICH WAGON HAS LEAST TRAVELERS ON END USER'S DEVICE WHILE AT STATION
2254
DISPLAY WHICH WAGON HAS LEAST TRAVELERS ON DIGITAL DISPLAYS AT STATION
2256
DIGITAL DISPLAY
2256
DIGITAL DISPLAY
2250
END USER
2248
MANY TRAVELERS AT STATION
2258

FIG. 72B

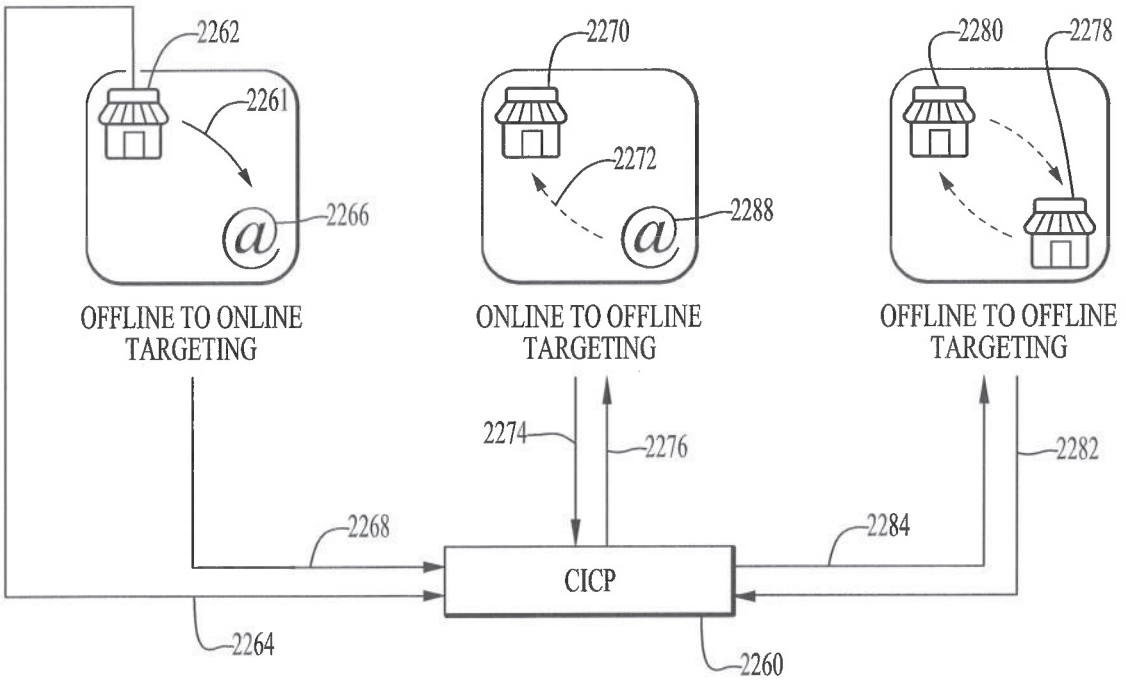

2262
2261
2266
OFFLINE TO ONLINE TARGETING
2270
2272
2288
ONLINE TO OFFLINE TARGETING
2280
2278
OFFLINE TO OFFLINE TARGETING
2274
2276
2282
2268
2284
CICP
2264
2260

FIG. 73

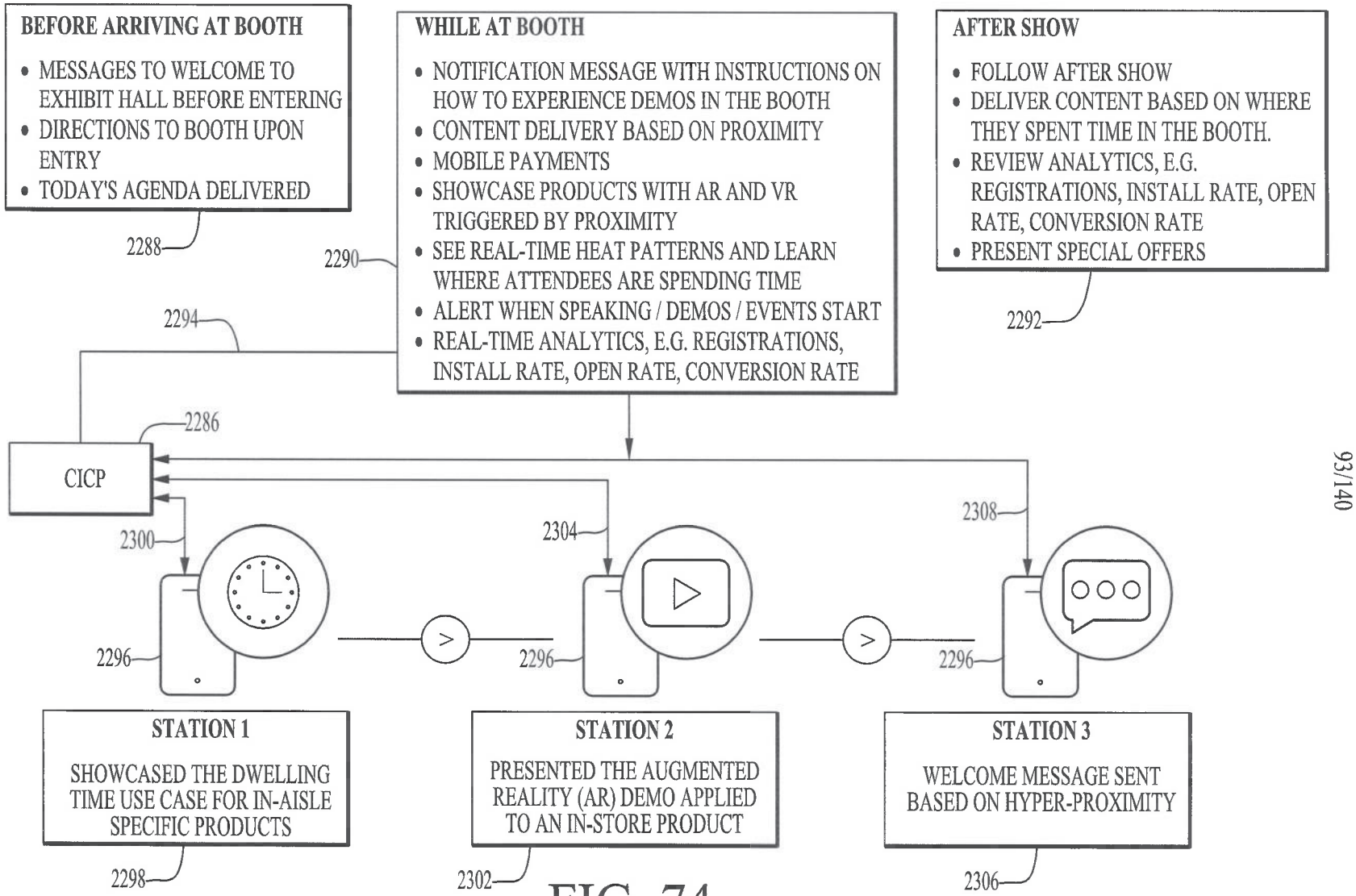

BEFORE ARRIVING AT BOOTH
• MESSAGES TO WELCOME TO EXHIBIT HALL BEFORE ENTERING
• DIRECTIONS TO BOOTH UPON ENTRY
• TODAY'S AGENDA DELIVERED
2288
WHILE AT BOOTH
• NOTIFICATION MESSAGE WITH INSTRUCTIONS ON HOW TO EXPERIENCE DEMOS IN THE BOOTH
• CONTENT DELIVERY BASED ON PROXIMITY
• MOBILE PAYMENTS
• SHOWCASE PRODUCTS WITH AR AND VR TRIGGERED BY PROXIMITY
• SEE REAL-TIME HEAT PATTERNS AND LEARN WHERE ATTENDEES ARE SPENDING TIME
• ALERT WHEN SPEAKING / DEMOS / EVENTS START
• REAL-TIME ANALYTICS, E.G. REGISTRATIONS, INSTALL RATE, OPEN RATE, CONVERSION RATE
2290
AFTER SHOW
• FOLLOW AFTER SHOW
• DELIVER CONTENT BASED ON WHERE THEY SPENT TIME IN THE BOOTH.
• REVIEW ANALYTICS, E.G. REGISTRATIONS, INSTALL RATE, OPEN RATE, CONVERSION RATE
• PRESENT SPECIAL OFFERS
2292
2294
2286
CICP
2300
2304
2308
2296
2296
2296
STATION 1
SHOWCASED THE DWELLING TIME USE CASE FOR IN-AISLE SPECIFIC PRODUCTS
2298
STATION 2
PRESENTED THE AUGMENTED REALITY (AR) DEMO APPLIED TO AN IN-STORE PRODUCT
2302
STATION 3
WELCOME MESSAGE SENT BASED ON HYPER-PROXIMITY
2306

FIG. 74

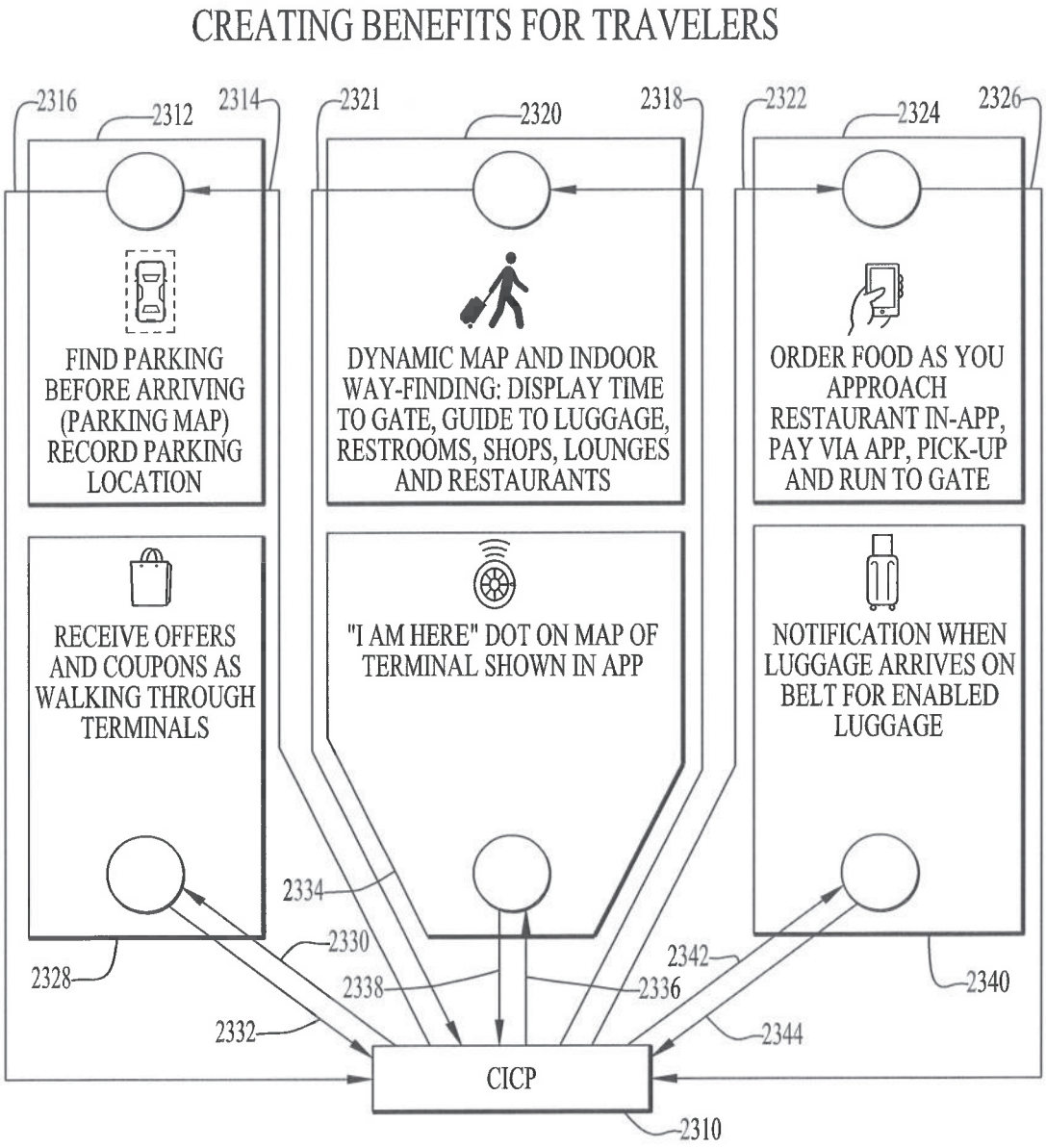

CREATING BENEFITS FOR TRAVELERS
2316
2312
2314
2321
2320
2318
2322
2324
2326
FIND PARKING BEFORE ARRIVING (PARKING MAP) RECORD PARKING LOCATION
DYNAMIC MAP AND INDOOR WAY-FINDING: DISPLAY TIME TO GATE, GUIDE TO LUGGAGE, RESTROOMS, SHOPS, LOUNGES AND RESTAURANTS
ORDER FOOD AS YOU APPROACH RESTAURANT IN-APP, PAY VIA APP, PICK-UP AND RUN TO GATE
RECEIVE OFFERS AND COUPONS AS WALKING THROUGH TERMINALS
"I AM HERE" DOT ON MAP OF TERMINAL SHOWN IN APP
NOTIFICATION WHEN LUGGAGE ARRIVES ON BELT FOR ENABLED LUGGAGE
2334
2330
2328
2338
2336
2342
2340
2332
2344
CICP
2310

FIG. 75

USE CASES
MONITOR AND RECORD BEHAVIOR - CONTROL SYSTEM DASHBOARD

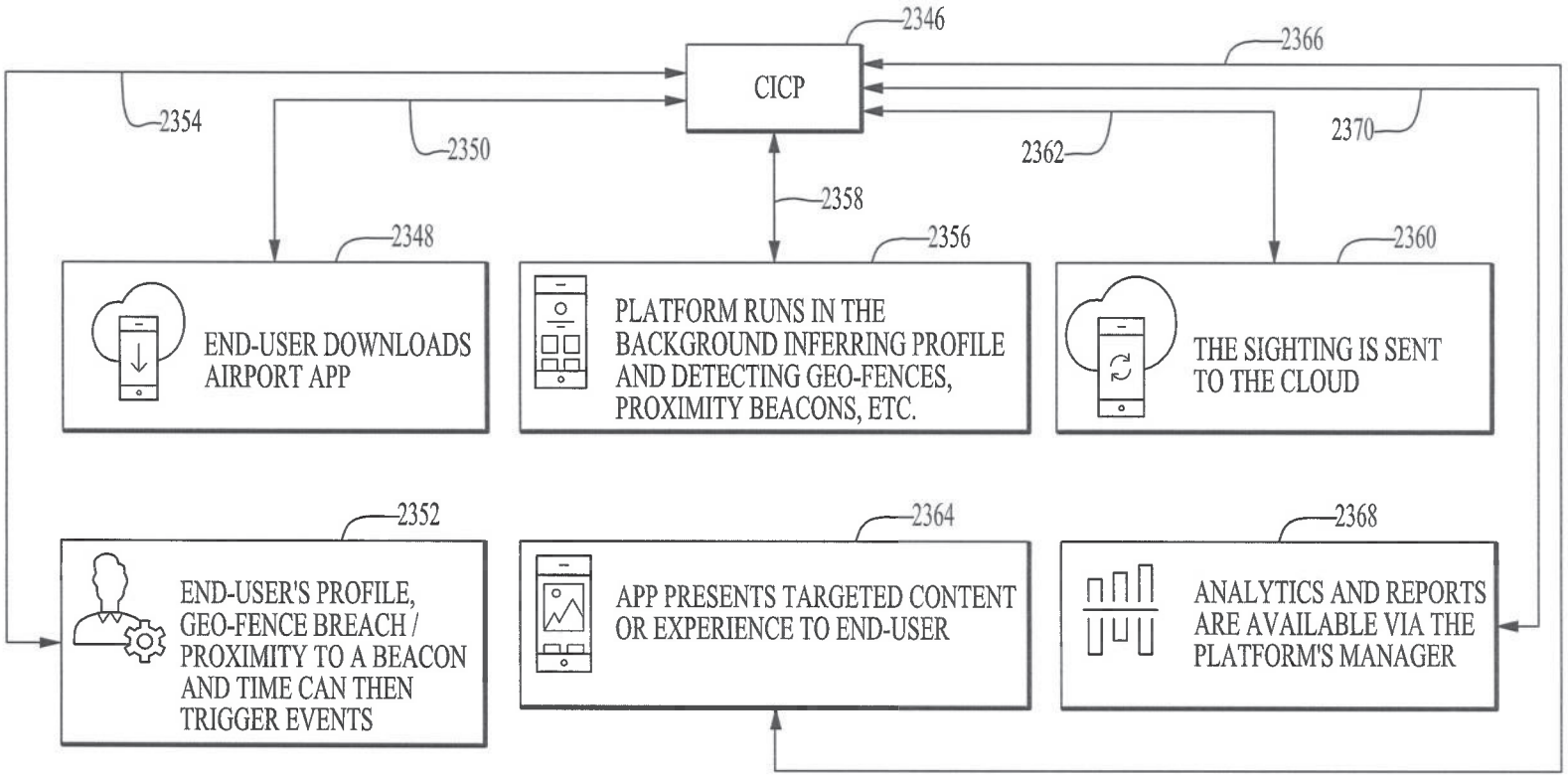


FIG. 76

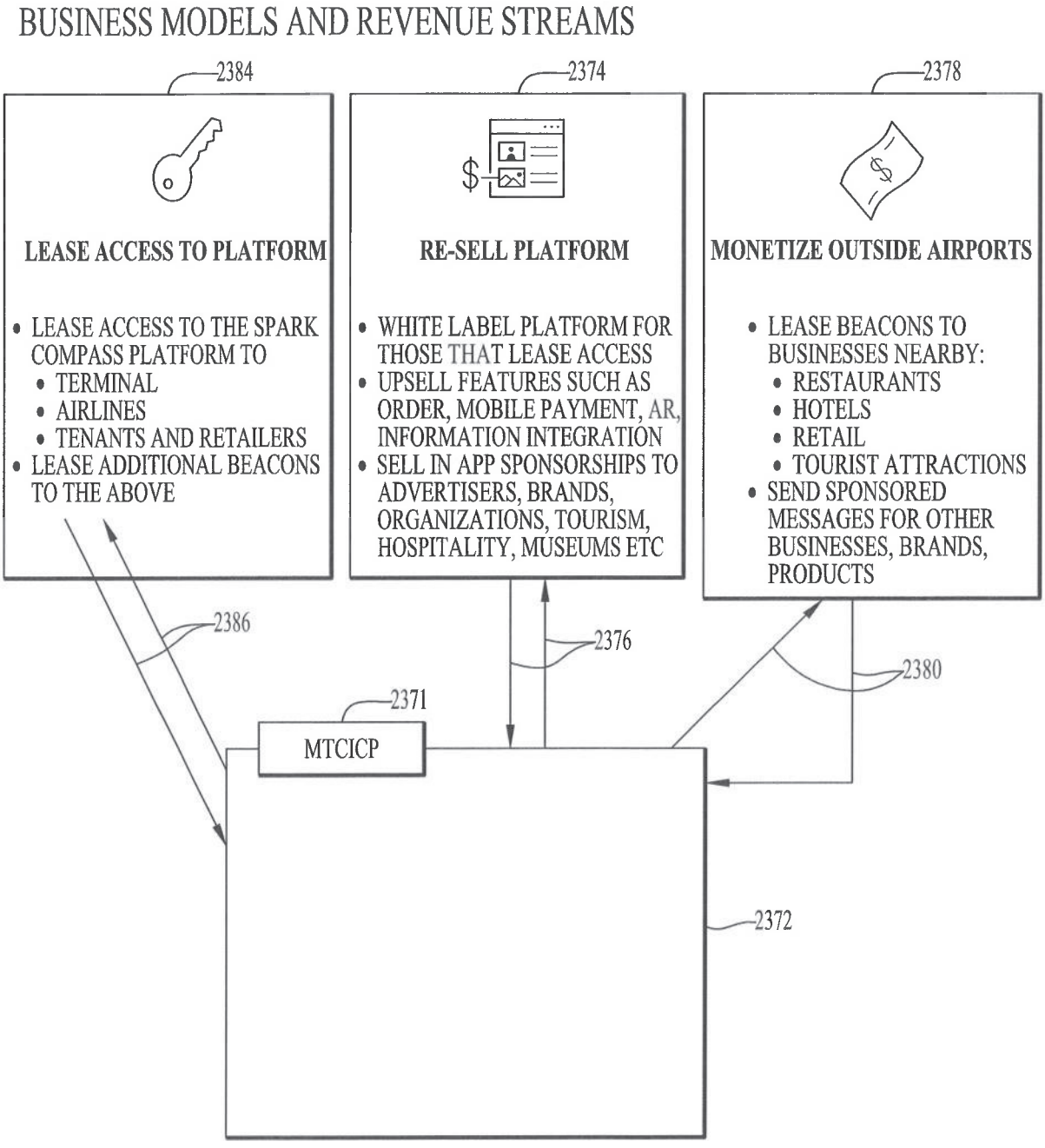

BUSINESS MODELS AND REVENUE STREAMS
2384
2374
2378
LEASE ACCESS TO PLATFORM
• LEASE ACCESS TO THE SPARK COMPASS PLATFORM TO
• TERMINAL
• AIRLINES
• TENANTS AND RETAILERS
• LEASE ADDITIONAL BEACONS TO THE ABOVE
RE-SELL PLATFORM
• WHITE LABEL PLATFORM FOR THOSE THAT LEASE ACCESS
• UPSELL FEATURES SUCH AS ORDER, MOBILE PAYMENT, AR, INFORMATION INTEGRATION
• SELL IN APP SPONSORSHIPS TO ADVERTISERS, BRANDS, ORGANIZATIONS, TOURISM, HOSPITALITY, MUSEUMS ETC
MONETIZE OUTSIDE AIRPORTS
• LEASE BEACONS TO BUSINESSES NEARBY:
• RESTAURANTS
• HOTELS
• RETAIL
• TOURIST ATTRACTIONS
• SEND SPONSORED MESSAGES FOR OTHER BUSINESSES, BRANDS, PRODUCTS
2386
2376
2380
2371
MTCICP
2372

FIG. 77

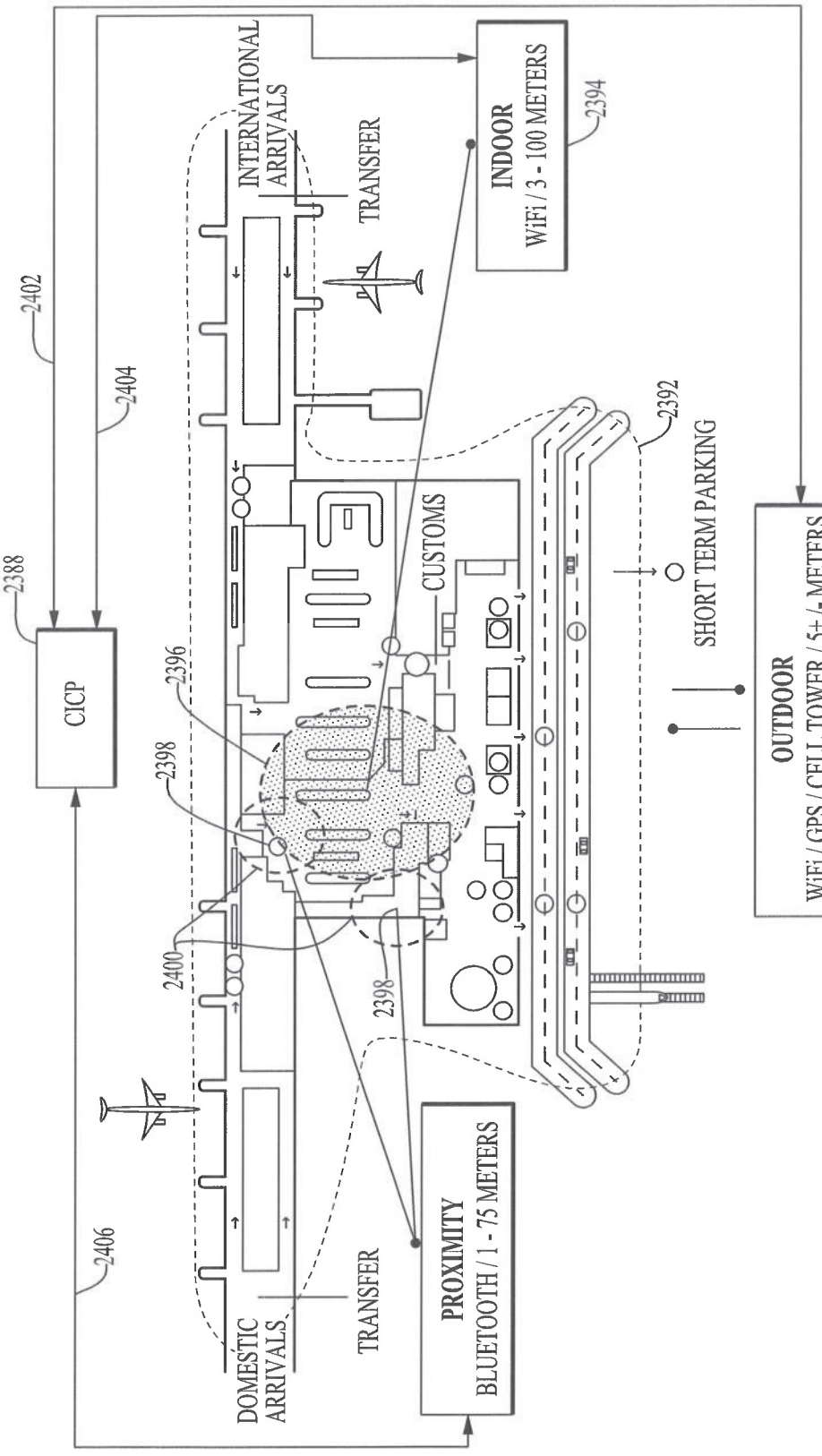

INTERNATIONAL ARRIVALS
TRANSFER
INDOOR
WiFi / 3 - 100 METERS
2394
2402
2404
2392
CUSTOMS
SHORT TERM PARKING
2388
CICP
2396
2398
OUTDOOR
WiFi / GPS / CELL TOWER / 5+ /- METERS
2390
2400
2398
2406
PROXIMITY
BLUETOOTH / 1 - 75 METERS
TRANSFER
DOMESTIC ARRIVALS

FIG. 78

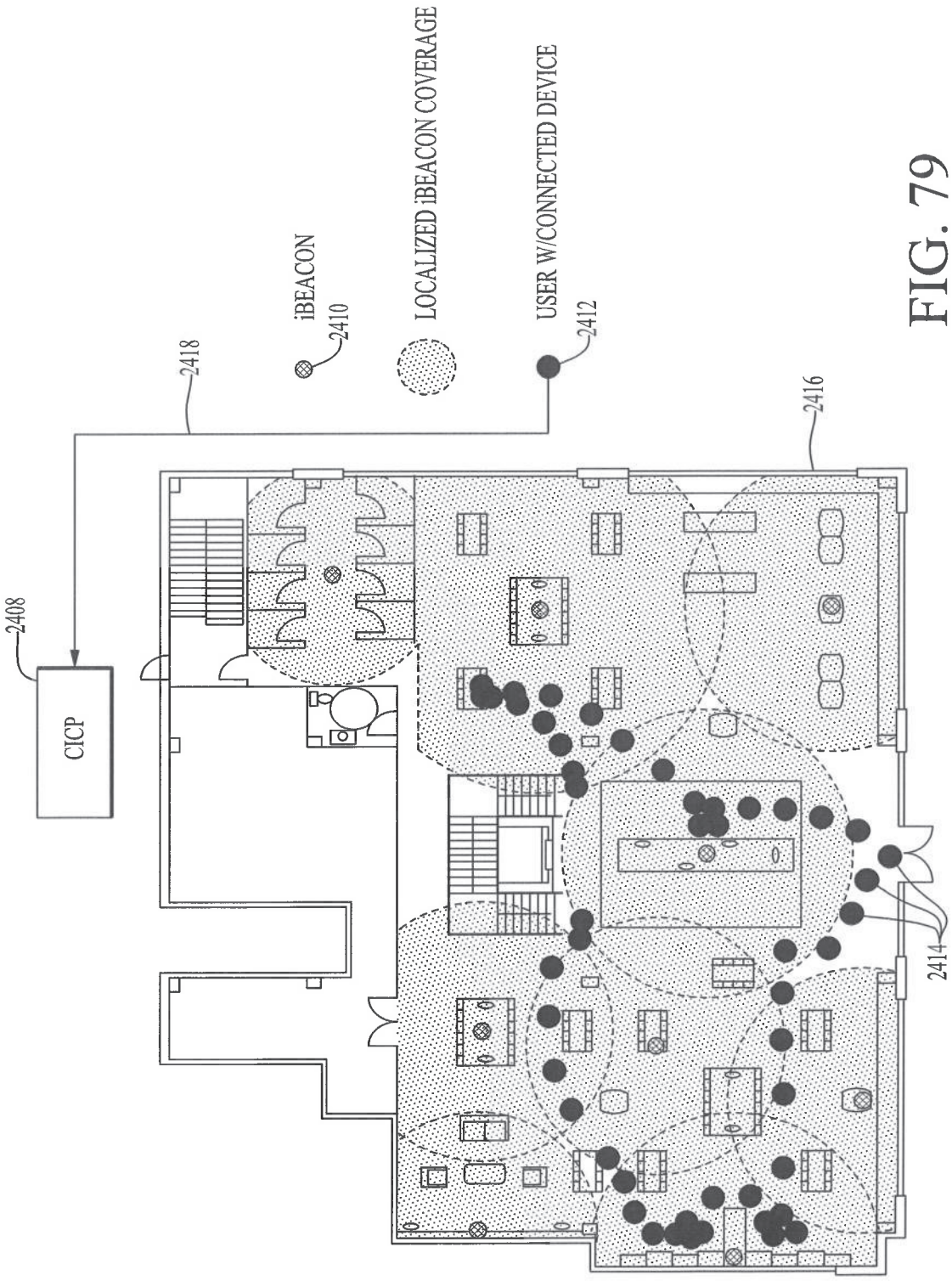

iBEACON
2410
LOCALIZED iBEACON COVERAGE
USER W/CONNECTED DEVICE
2412
2418
2416
2408
CICP
2414

FIG. 79

A NEW WAY TO DELIVER CONTENT

ENHANCE PAY-TO-VIEW CONTENT WITH CONTEXT-INTELLIGENT ADS

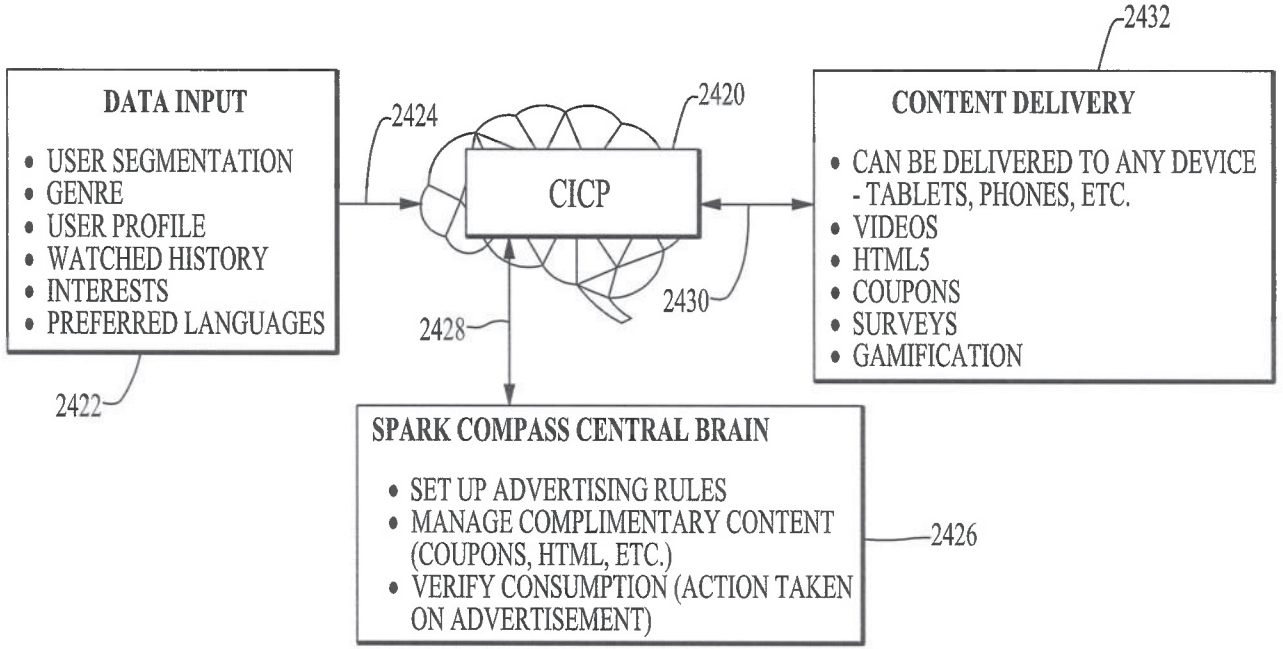


FIG. 80

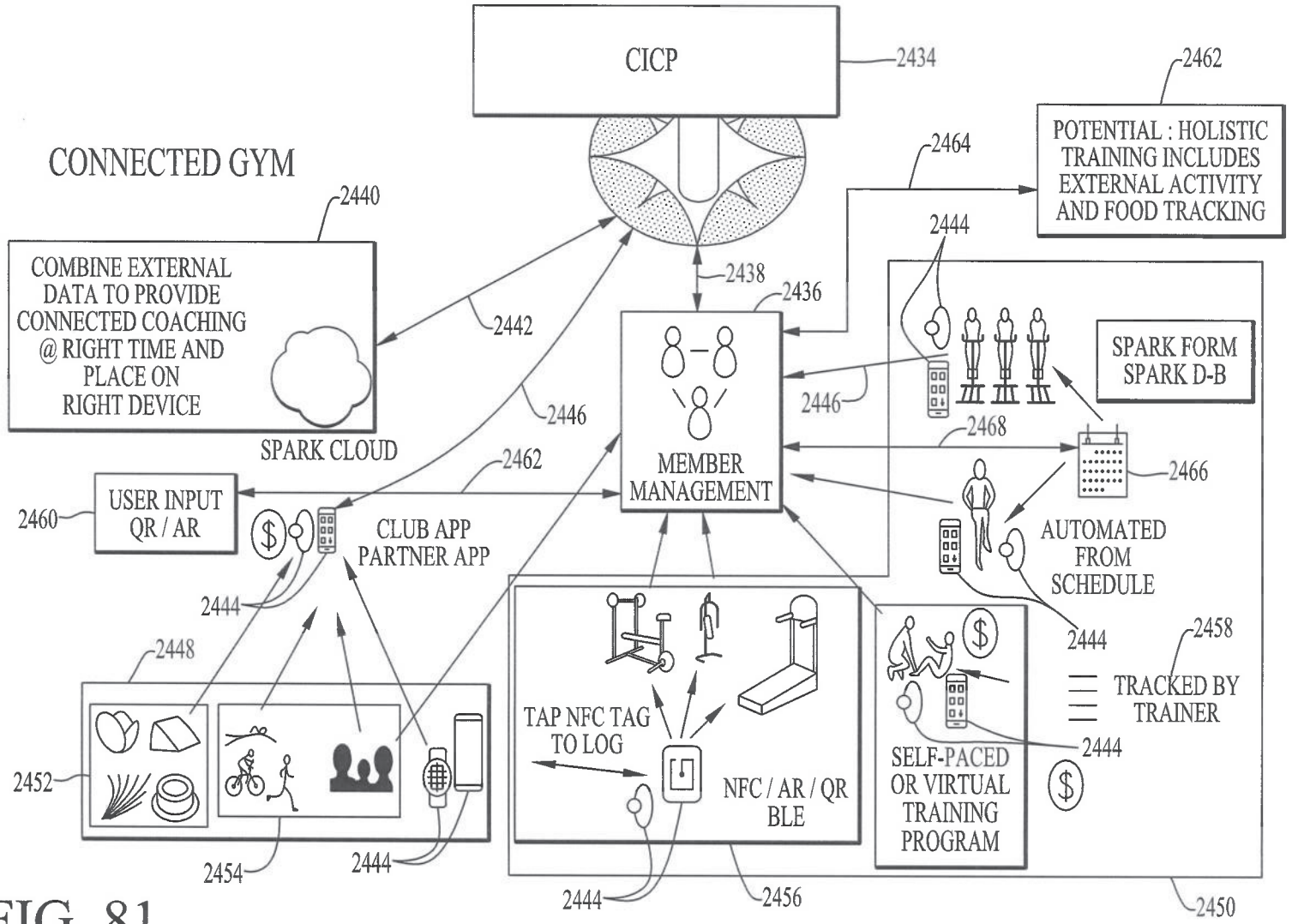

CICP
2434
2462
POTENTIAL : HOLISTIC TRAINING INCLUDES EXTERNAL ACTIVITY AND FOOD TRACKING
2464
CONNECTED GYM
2440
COMBINE EXTERNAL DATA TO PROVIDE CONNECTED COACHING @ RIGHT TIME AND PLACE ON RIGHT DEVICE
SPARK CLOUD
2442
2438
2436
2444
SPARK FORM SPARK D-B
2446
2446
2468
2466
MEMBER MANAGEMENT
2462
USER INPUT QR / AR
2460
CLUB APP PARTNER APP
AUTOMATED FROM SCHEDULE
2444
2448
2444
2458
TRACKED BY TRAINER
TAP NFC TAG TO LOG
NFC / AR / QR BLE
SELF-PACED OR VIRTUAL TRAINING PROGRAM
2444
2452
2454
2444
2444
2456
2450

FIG. 81

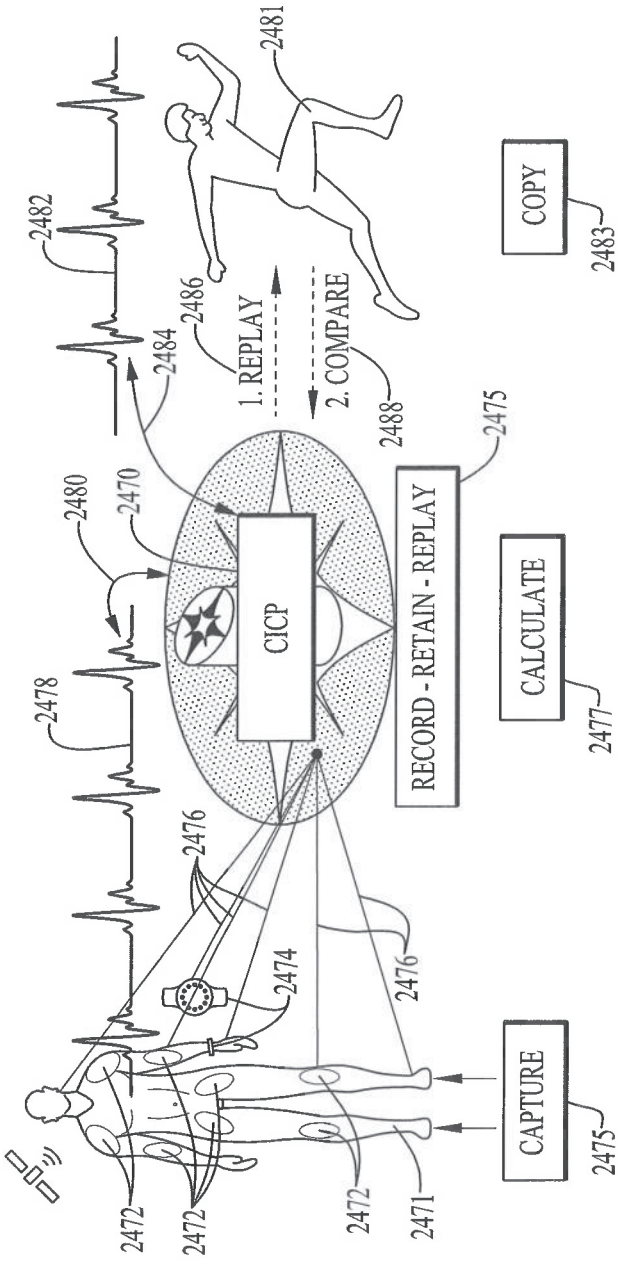

SPARK CONNECTED TRAINER
2472
2472
2471
2472
2474
2476
2476
2478
2480
2470
2484
2482
2486
1. REPLAY
2. COMPARE
2488
2481
CICP
RECORD - RETAIN - REPLAY
2475
CALCULATE
2477
COPY
2483
CAPTURE
2475

FIG. 82A

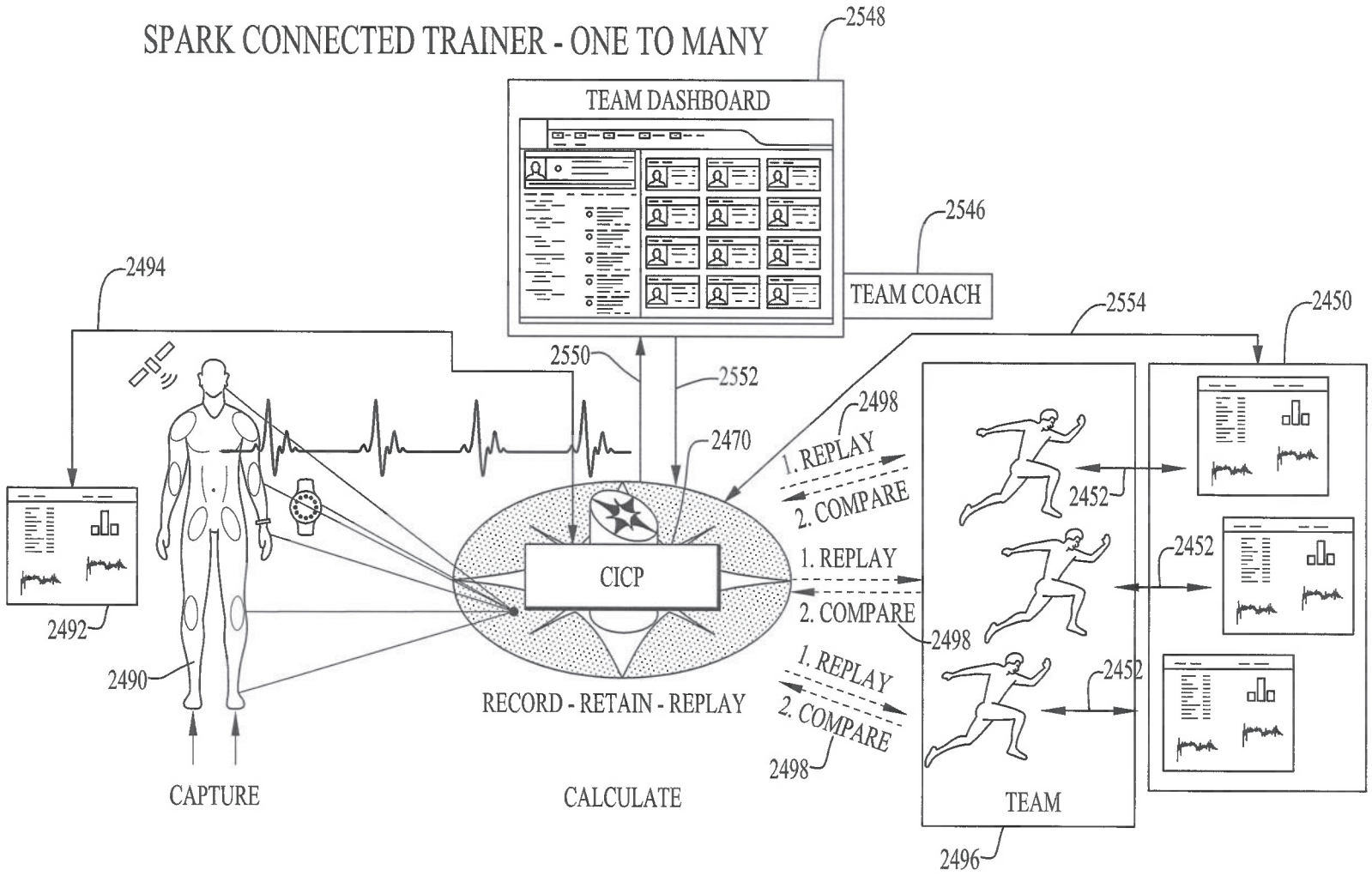

SPARK CONNECTED TRAINER - ONE TO MANY
2548
TEAM DASHBOARD
2546
TEAM COACH
2494
2554
2450
2550
2552
2498
2470
1. REPLAY
2. COMPARE
2452
CICP
2492
2490
RECORD - RETAIN - REPLAY
CAPTURE
CALCULATE
TEAM
2496

FIG. 82B

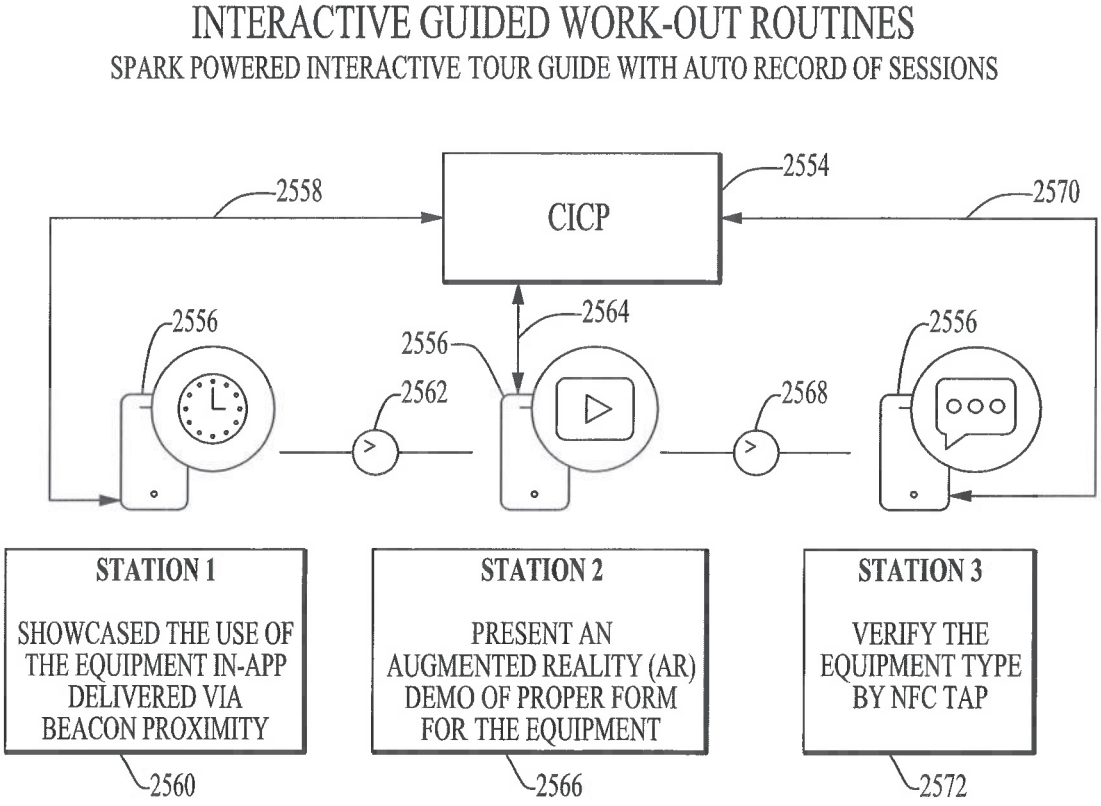

INTERACTIVE GUIDED WORK-OUT ROUTINES
SPARK POWERED INTERACTIVE TOUR GUIDE WITH AUTO RECORD OF SESSIONS
2558
CICP
2554
2570
2556
2564
2556
2556
2562
2568
STATION 1
SHOWCASED THE USE OF THE EQUIPMENT IN-APP DELIVERED VIA BEACON PROXIMITY
2560
STATION 2
PRESENT AN AUGMENTED REALITY (AR) DEMO OF PROPER FORM FOR THE EQUIPMENT
2566
STATION 3
VERIFY THE EQUIPMENT TYPE BY NFC TAP
2572

FIG. 83

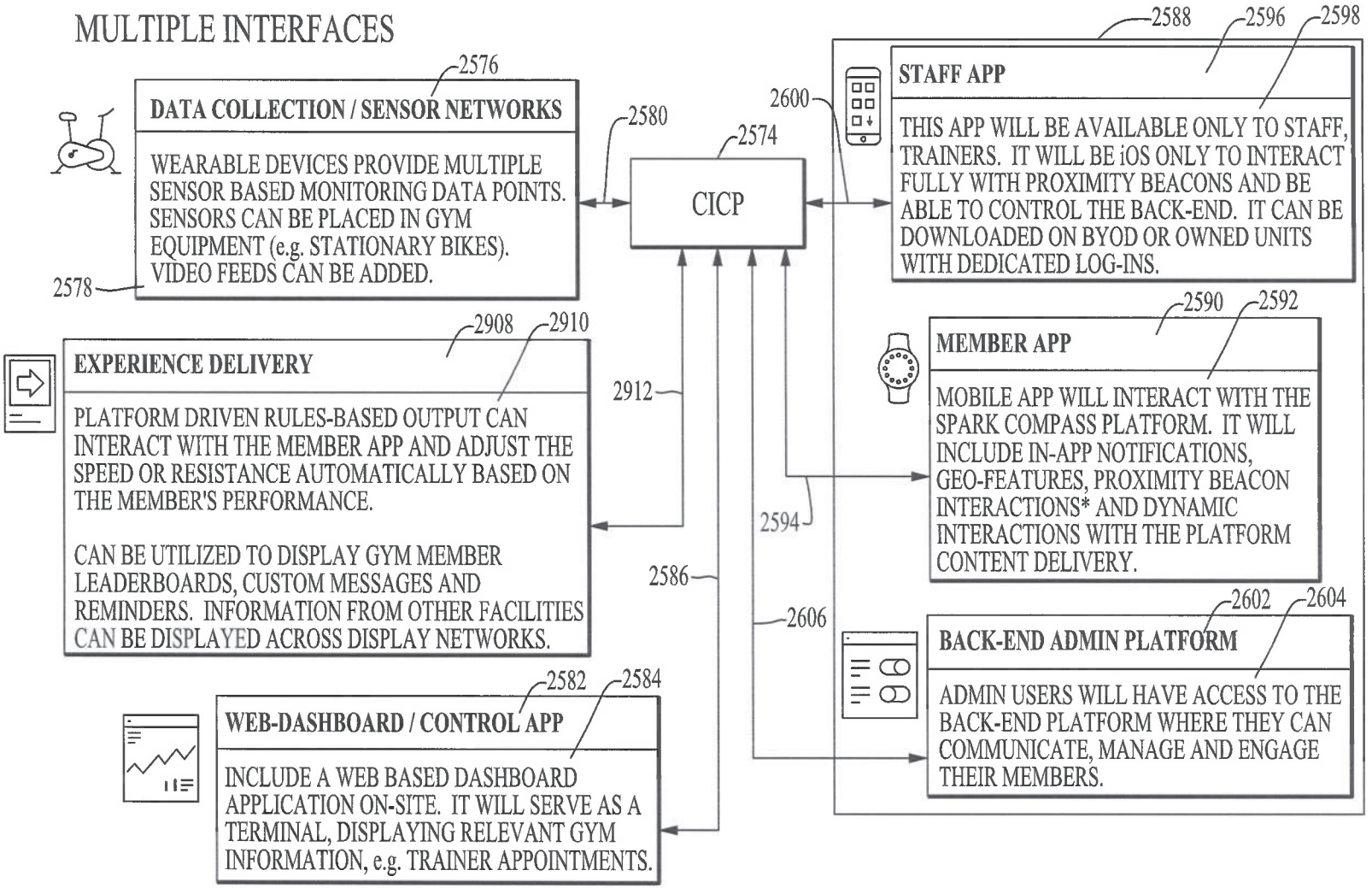

MULTIPLE INTERFACES
2576
DATA COLLECTION / SENSOR NETWORKS
WEARABLE DEVICES PROVIDE MULTIPLE SENSOR BASED MONITORING DATA POINTS. SENSORS CAN BE PLACED IN GYM EQUIPMENT (e.g. STATIONARY BIKES). VIDEO FEEDS CAN BE ADDED.
2578
2580
2574
CICP
2600
2588
2596
2598
STAFF APP
THIS APP WILL BE AVAILABLE ONLY TO STAFF, TRAINERS. IT WILL BE iOS ONLY TO INTERACT FULLY WITH PROXIMITY BEACONS AND BE ABLE TO CONTROL THE BACK-END. IT CAN BE DOWNLOADED ON BYOD OR OWNED UNITS WITH DEDICATED LOG-INS.
2908
2910
EXPERIENCE DELIVERY
PLATFORM DRIVEN RULES-BASED OUTPUT CAN INTERACT WITH THE MEMBER APP AND ADJUST THE SPEED OR RESISTANCE AUTOMATICALLY BASED ON THE MEMBER'S PERFORMANCE.
CAN BE UTILIZED TO DISPLAY GYM MEMBER LEADERBOARDS, CUSTOM MESSAGES AND REMINDERS. INFORMATION FROM OTHER FACILITIES CAN BE DISPLAYED ACROSS DISPLAY NETWORKS.
2912
2590
2592
MEMBER APP
MOBILE APP WILL INTERACT WITH THE SPARK COMPASS PLATFORM. IT WILL INCLUDE IN-APP NOTIFICATIONS, GEO-FEATURES, PROXIMITY BEACON INTERACTIONS* AND DYNAMIC INTERACTIONS WITH THE PLATFORM CONTENT DELIVERY.
2594
2586
2606
2602
2604
BACK-END ADMIN PLATFORM
ADMIN USERS WILL HAVE ACCESS TO THE BACK-END PLATFORM WHERE THEY CAN COMMUNICATE, MANAGE AND ENGAGE THEIR MEMBERS.
2582
2584
WEB-DASHBOARD / CONTROL APP
INCLUDE A WEB BASED DASHBOARD APPLICATION ON-SITE. IT WILL SERVE AS A TERMINAL, DISPLAYING RELEVANT GYM INFORMATION, e.g. TRAINER APPOINTMENTS.

FIG. 84

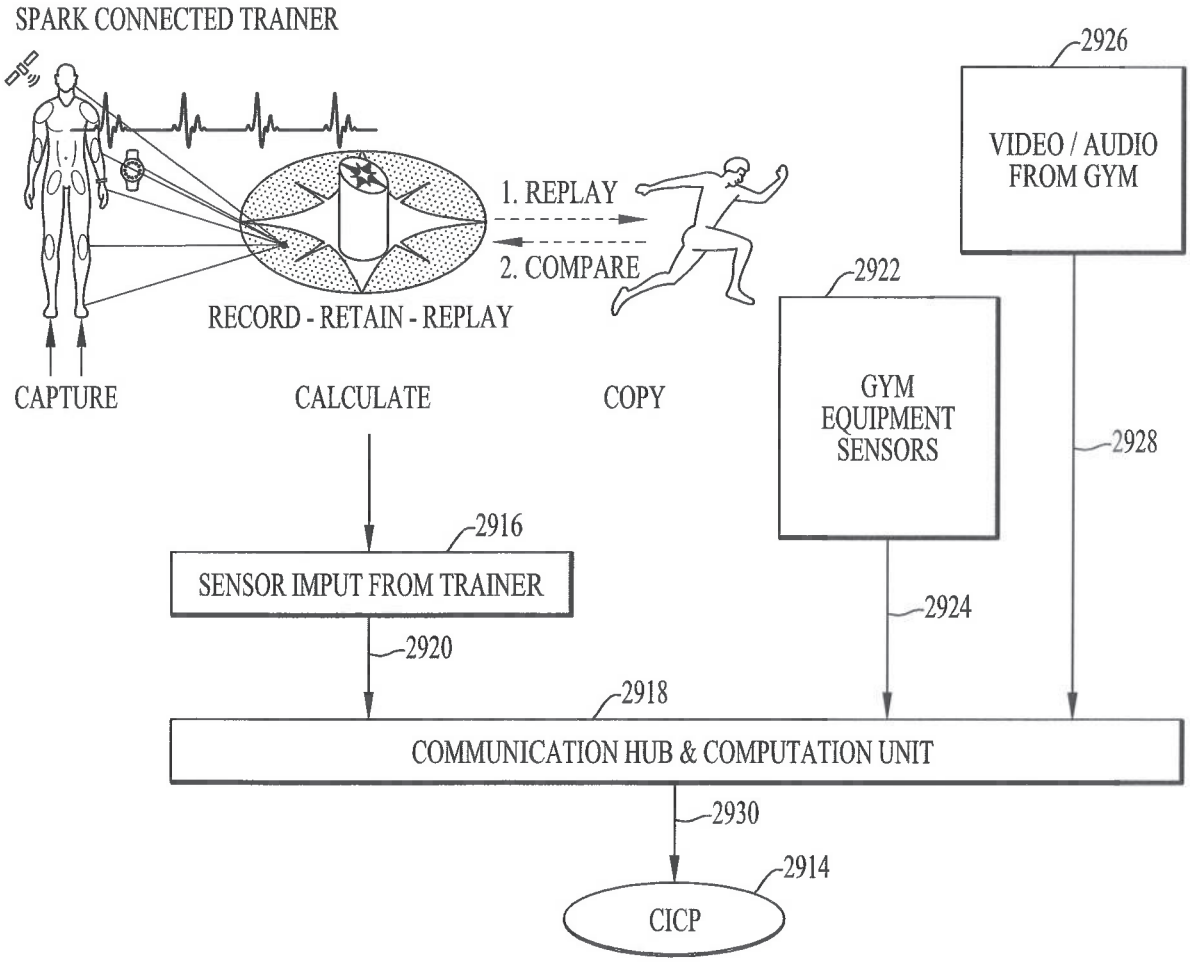

SPARK CONNECTED TRAINER
2926
VIDEO / AUDIO FROM GYM
1. REPLAY
2. COMPARE
RECORD - RETAIN - REPLAY
2922
GYM EQUIPMENT SENSORS
CAPTURE
CALCULATE
COPY
2928
2916
SENSOR IMPUT FROM TRAINER
2924
2920
2918
COMMUNICATION HUB & COMPUTATION UNIT
2930
2914
CICP

FIG. 85

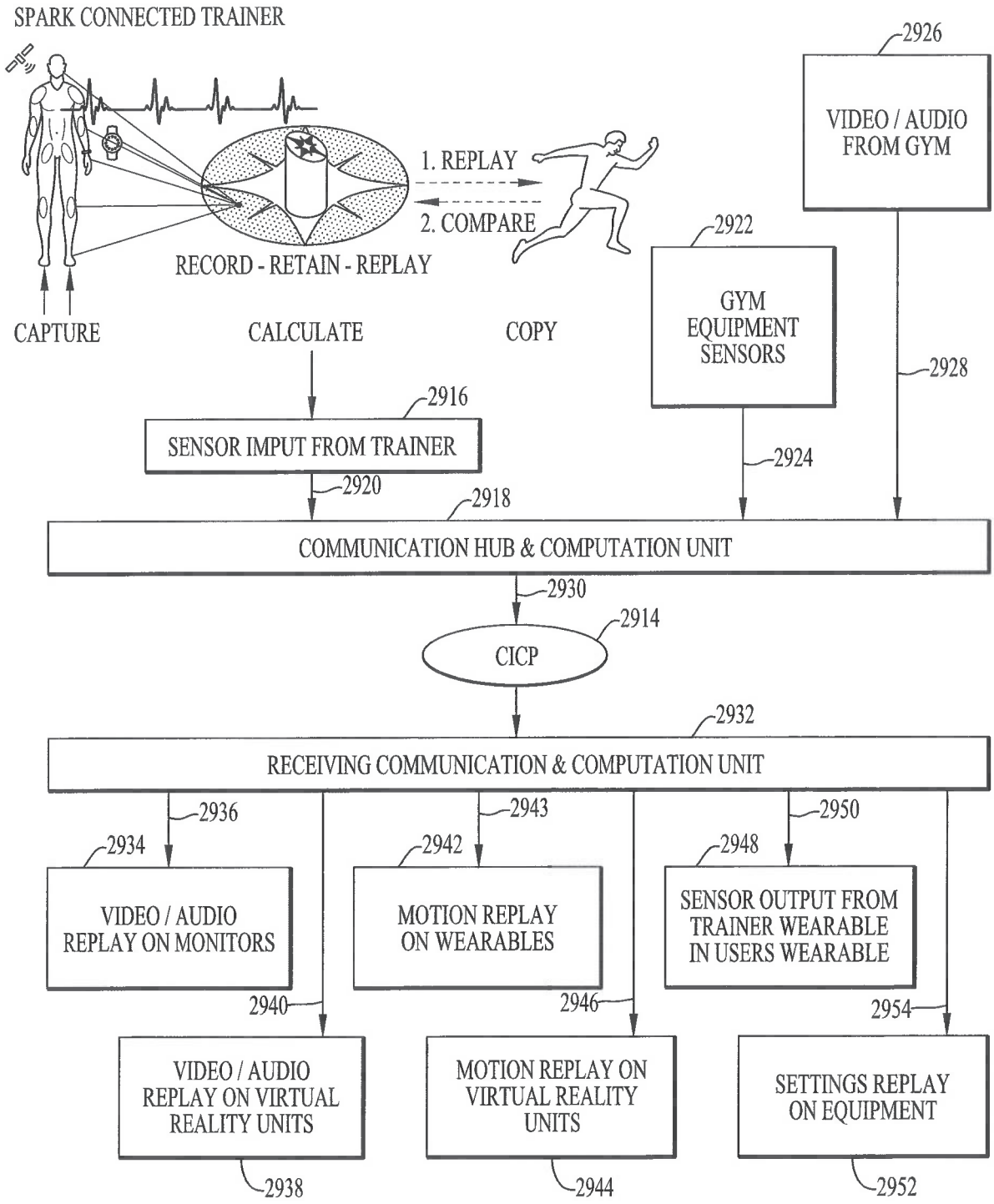

SPARK CONNECTED TRAINER
1. REPLAY
2. COMPARE
RECORD - RETAIN - REPLAY
CAPTURE
CALCULATE
COPY
2926
VIDEO / AUDIO FROM GYM
2922
GYM EQUIPMENT SENSORS
2928
2924
2916
SENSOR IMPUT FROM TRAINER
2920
2918
COMMUNICATION HUB & COMPUTATION UNIT
2930
2914
CICP
2932
RECEIVING COMMUNICATION & COMPUTATION UNIT
2936
2934
VIDEO / AUDIO REPLAY ON MONITORS
2943
2942
MOTION REPLAY ON WEARABLES
2950
2948
SENSOR OUTPUT FROM TRAINER WEARABLE IN USERS WEARABLE
2940
VIDEO / AUDIO REPLAY ON VIRTUAL REALITY UNITS
2946
MOTION REPLAY ON VIRTUAL REALITY UNITS
2954
SETTINGS REPLAY ON EQUIPMENT
2938
2944
2952

FIG. 86

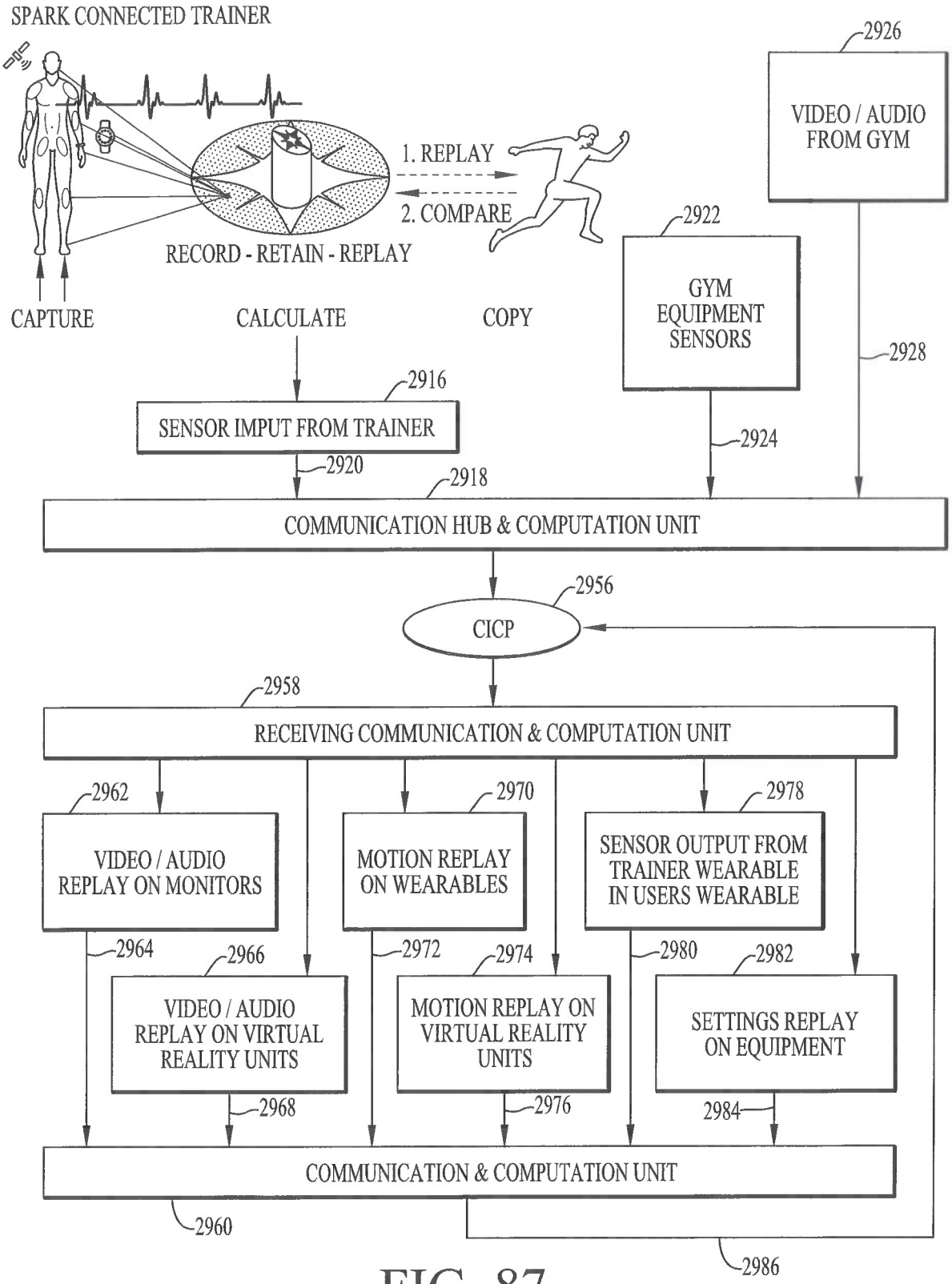

SPARK CONNECTED TRAINER
2926
VIDEO / AUDIO FROM GYM
1. REPLAY
2. COMPARE
RECORD - RETAIN - REPLAY
2922
GYM EQUIPMENT SENSORS
CAPTURE
CALCULATE
COPY
2928
2916
SENSOR IMPUT FROM TRAINER
2924
2920
2918
COMMUNICATION HUB & COMPUTATION UNIT
2956
CICP
2958
RECEIVING COMMUNICATION & COMPUTATION UNIT
2962
VIDEO / AUDIO REPLAY ON MONITORS
2970
MOTION REPLAY ON WEARABLES
2978
SENSOR OUTPUT FROM TRAINER WEARABLE IN USERS WEARABLE
2964
2966
VIDEO / AUDIO REPLAY ON VIRTUAL REALITY UNITS
2972
2974
MOTION REPLAY ON VIRTUAL REALITY UNITS
2980
2982
SETTINGS REPLAY ON EQUIPMENT
2968
2976
2984
COMMUNICATION & COMPUTATION UNIT
2960
2986

FIG. 87

FIG. 88A	FIG. 88B

FIG. 88

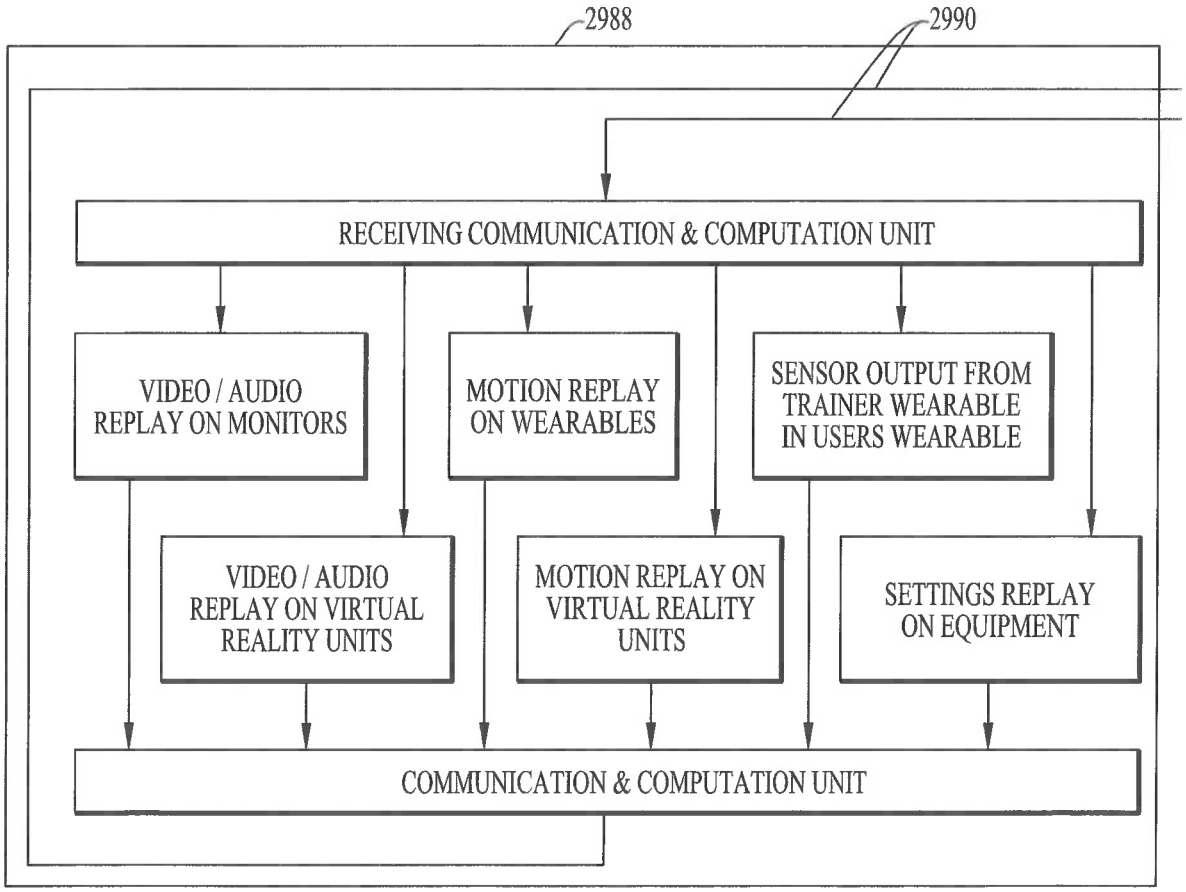


FIG. 88A

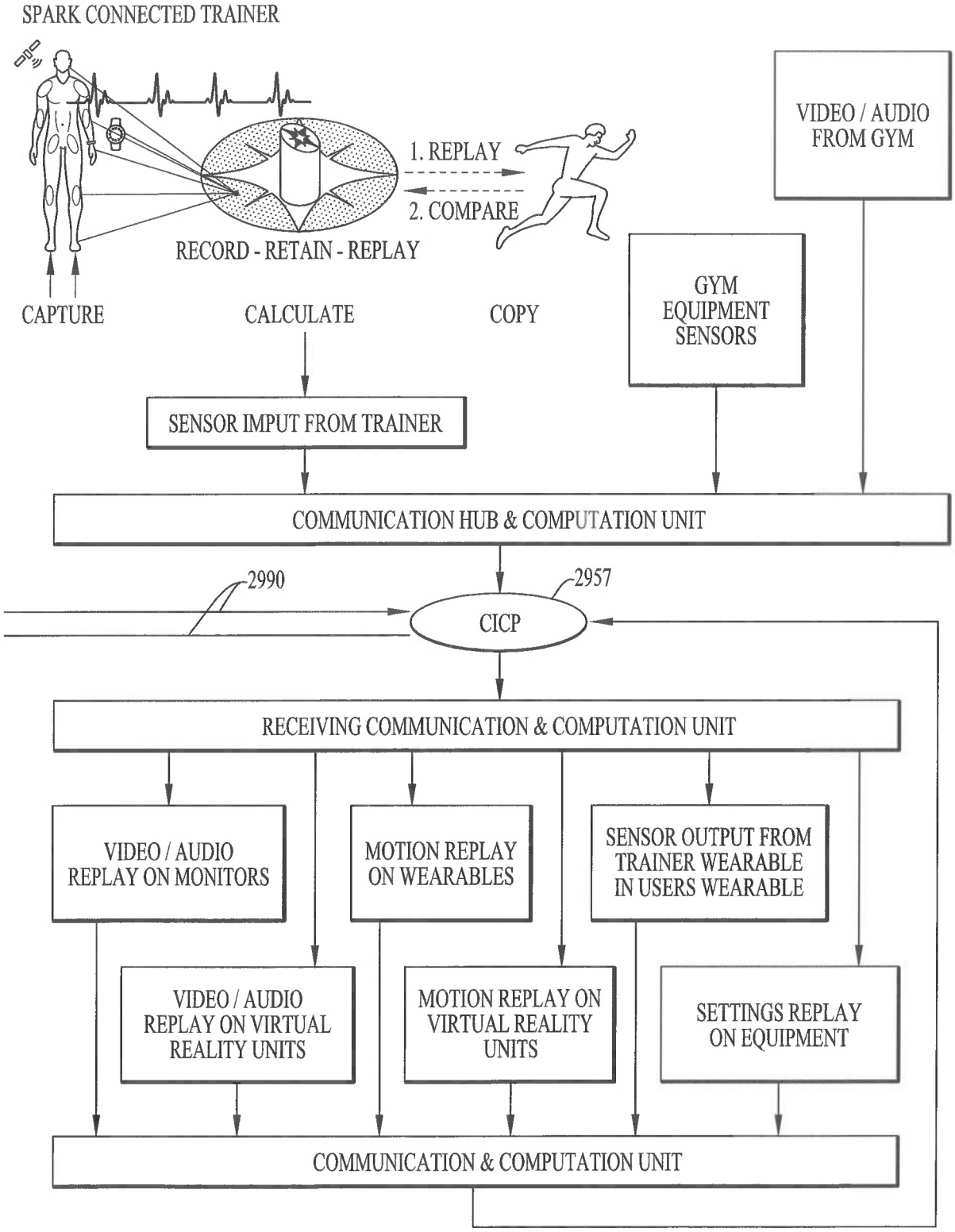

SPARK CONNECTED TRAINER
1. REPLAY
2. COMPARE
RECORD - RETAIN - REPLAY
CAPTURE
CALCULATE
COPY
VIDEO / AUDIO FROM GYM
GYM EQUIPMENT SENSORS
SENSOR IMPUT FROM TRAINER
COMMUNICATION HUB & COMPUTATION UNIT
2990
2957
CICP
RECEIVING COMMUNICATION & COMPUTATION UNIT
VIDEO / AUDIO REPLAY ON MONITORS
MOTION REPLAY ON WEARABLES
SENSOR OUTPUT FROM TRAINER WEARABLE IN USERS WEARABLE
VIDEO / AUDIO REPLAY ON VIRTUAL REALITY UNITS
MOTION REPLAY ON VIRTUAL REALITY UNITS
SETTINGS REPLAY ON EQUIPMENT
COMMUNICATION & COMPUTATION UNIT

FIG. 88B

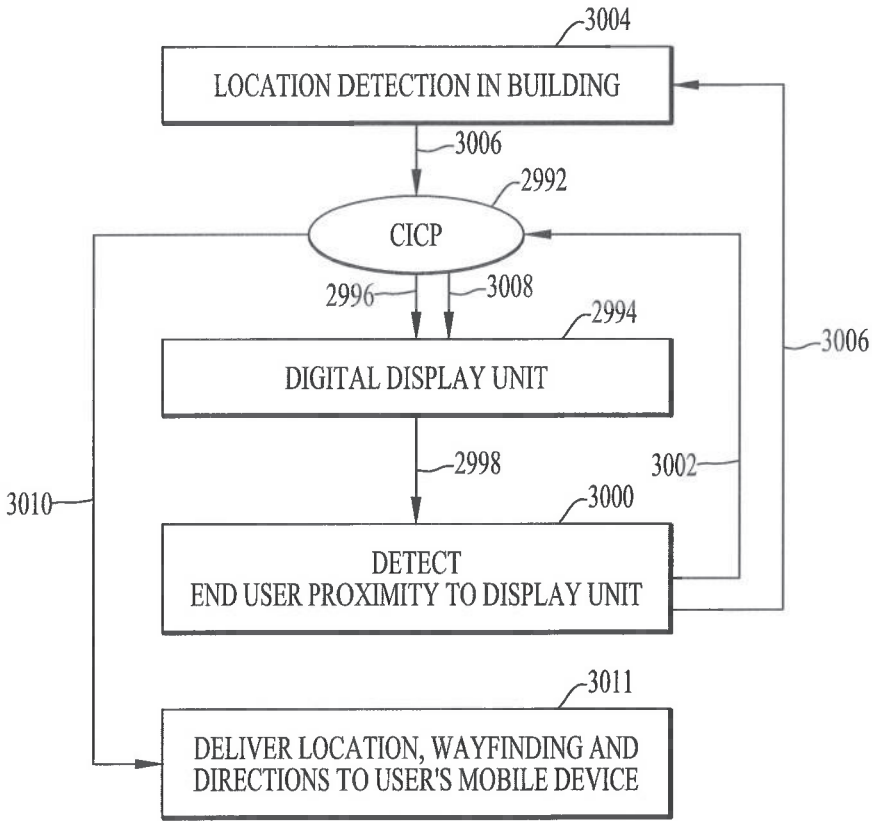

3004
LOCATION DETECTION IN BUILDING
3006
2992
CICP
2996
3008
2994
DIGITAL DISPLAY UNIT
3006
2998
3002
3010
3000
DETECT
END USER PROXIMITY TO DISPLAY UNIT
3011
DELIVER LOCATION, WAYFINDING AND
DIRECTIONS TO USER'S MOBILE DEVICE

FIG. 89

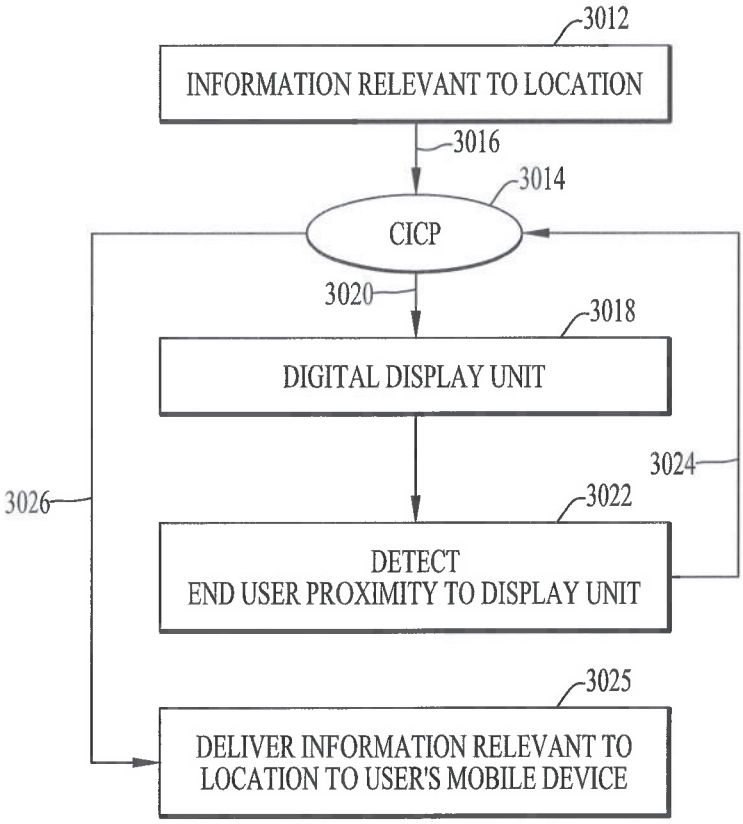

3012
INFORMATION RELEVANT TO LOCATION
3016
3014
CICP
3020
3018
DIGITAL DISPLAY UNIT
3024
3026
3022
DETECT
END USER PROXIMITY TO DISPLAY UNIT
3025
DELIVER INFORMATION RELEVANT TO
LOCATION TO USER'S MOBILE DEVICE

FIG. 90

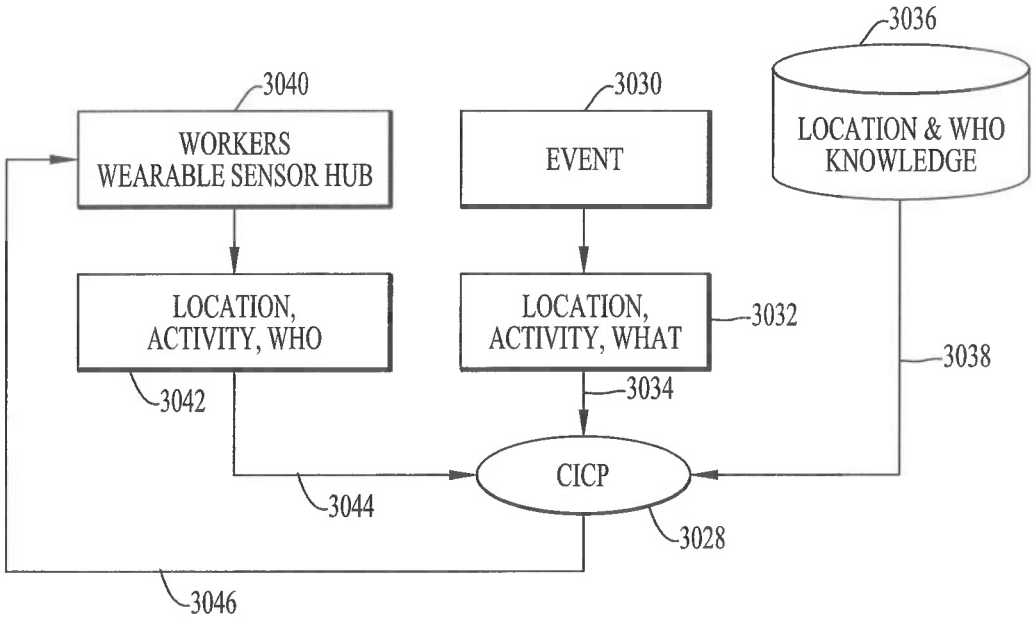

3036
3040
3030
WORKERS
WEARABLE SENSOR HUB
EVENT
LOCATION & WHO
KNOWLEDGE
LOCATION,
ACTIVITY, WHO
LOCATION,
ACTIVITY, WHAT
3032
3038
3042
3034
CICP
3044
3028
3046

FIG. 91

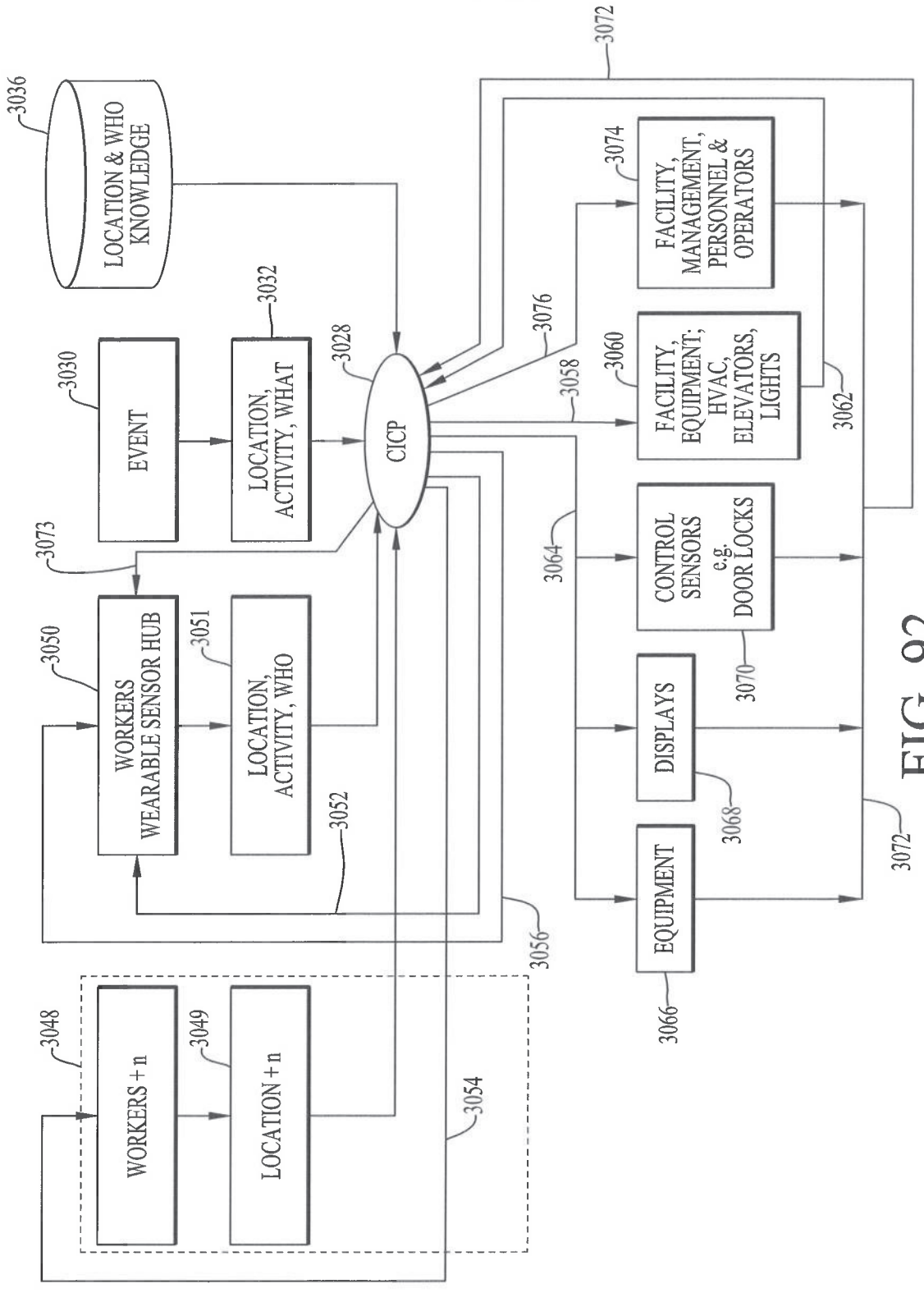

3036
LOCATION & WHO KNOWLEDGE
3030
EVENT
3032
LOCATION, ACTIVITY, WHAT
3028
CICP
3072
3074
FACILITY, MANAGEMENT, PERSONNEL & OPERATORS
3076
3058
3060
FACILITY, EQUIPMENT; HVAC, ELEVATORS, LIGHTS
3062
3073
3050
WORKERS WEARABLE SENSOR HUB
3051
LOCATION, ACTIVITY, WHO
3064
CONTROL SENSORS e.g. DOOR LOCKS
3070
3052
DISPLAYS
3068
EQUIPMENT
3066
3056
3048
WORKERS + n
3049
LOCATION + n
3054

FIG. 92

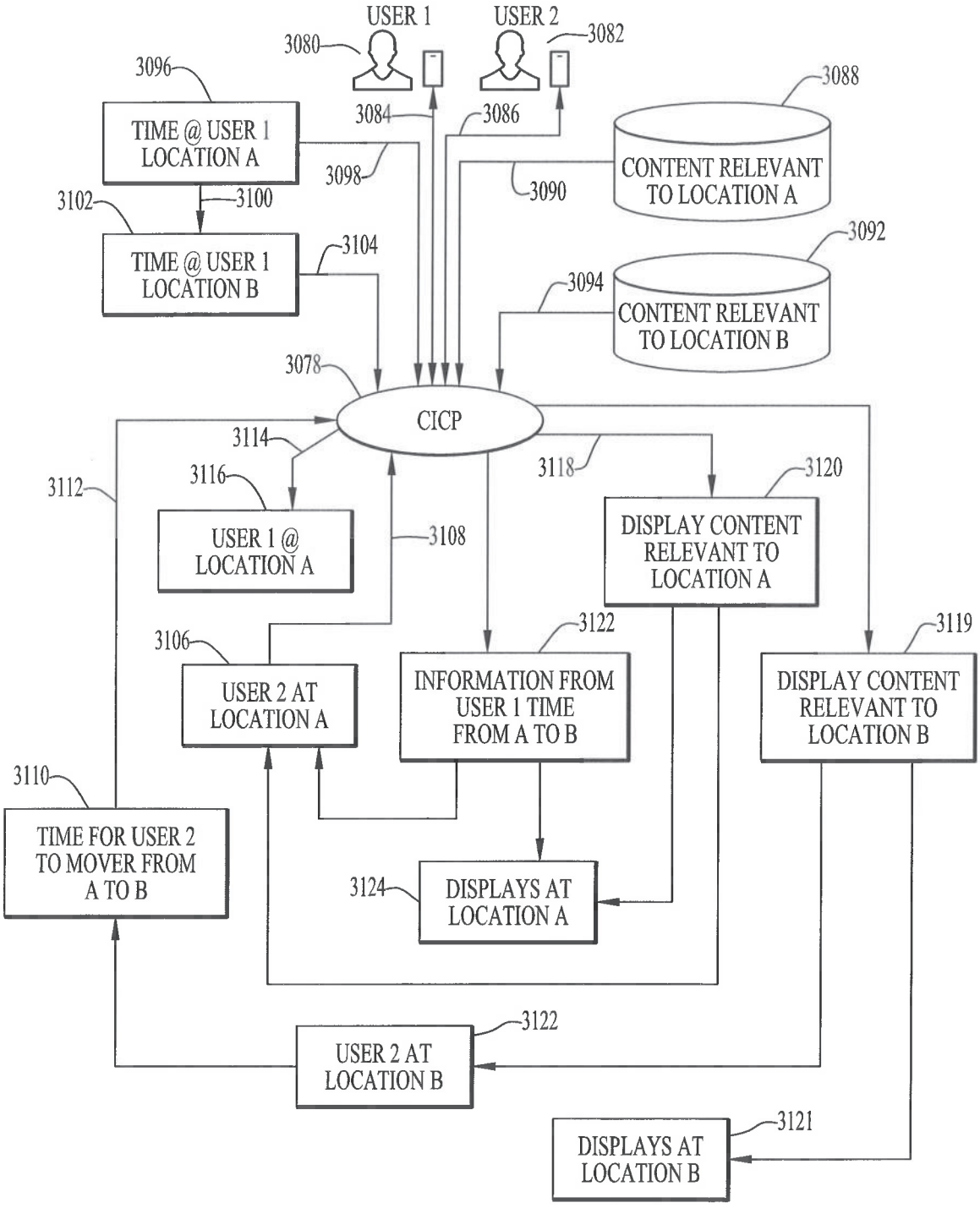

USER 1
USER 2
3080
3082
3096
TIME @ USER 1 LOCATION A
3084
3086
3088
CONTENT RELEVANT TO LOCATION A
3098
3090
3102
3100
TIME @ USER 1 LOCATION B
3104
3092
3094
CONTENT RELEVANT TO LOCATION B
3078
CICP
3114
3118
3120
3112
3116
USER 1 @ LOCATION A
3108
DISPLAY CONTENT RELEVANT TO LOCATION A
3122
3119
3106
USER 2 AT LOCATION A
INFORMATION FROM USER 1 TIME FROM A TO B
DISPLAY CONTENT RELEVANT TO LOCATION B
3110
TIME FOR USER 2 TO MOVER FROM A TO B
3124
DISPLAYS AT LOCATION A
3122
USER 2 AT LOCATION B
3121
DISPLAYS AT LOCATION B

FIG. 93

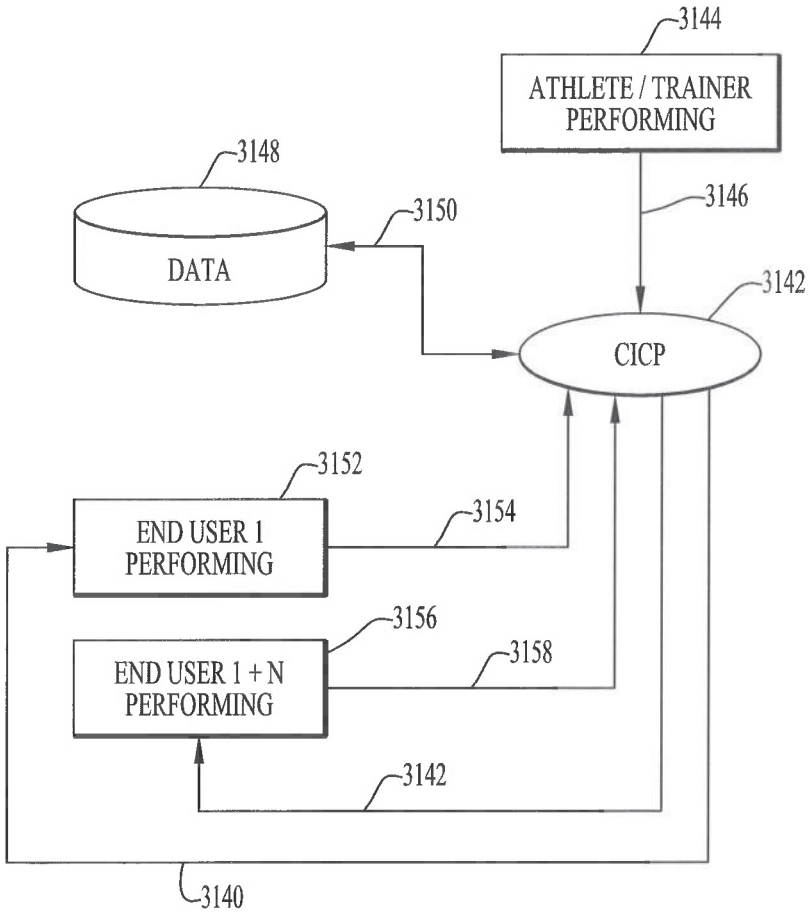

3144
ATHLETE / TRAINER PERFORMING
3148
DATA
3150
3146
3142
CICP
3152
END USER 1 PERFORMING
3154
3156
END USER 1 + N PERFORMING
3158
3142
3140

FIG. 94

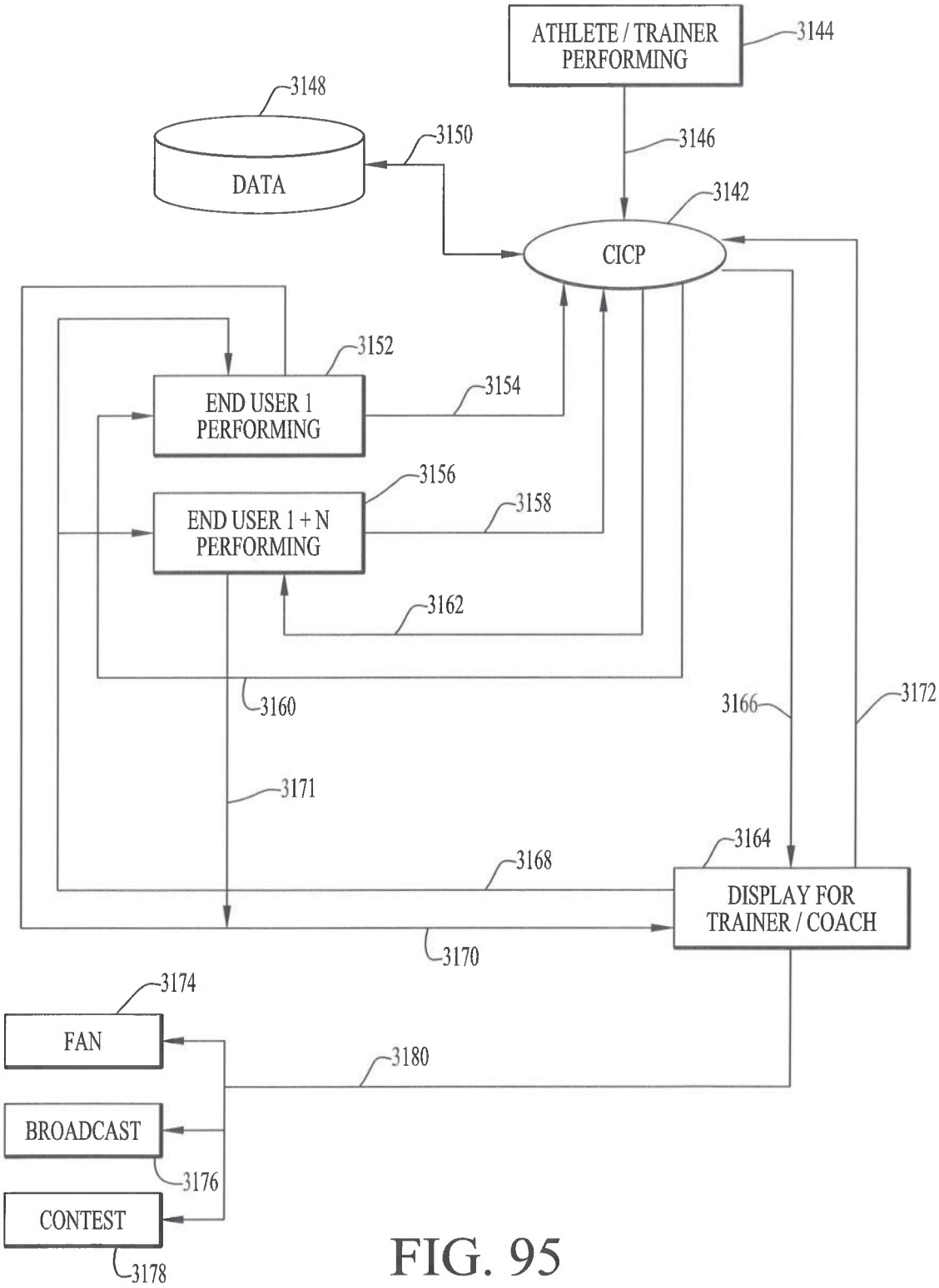

ATHLETE / TRAINER PERFORMING
3144
3148
DATA
3150
3146
3142
CICP
3152
END USER 1 PERFORMING
3154
3156
END USER 1 + N PERFORMING
3158
3162
3160
3166
3172
3171
3164
3168
DISPLAY FOR TRAINER / COACH
3170
3174
FAN
3180
BROADCAST
3176
CONTEST
3178

FIG. 95

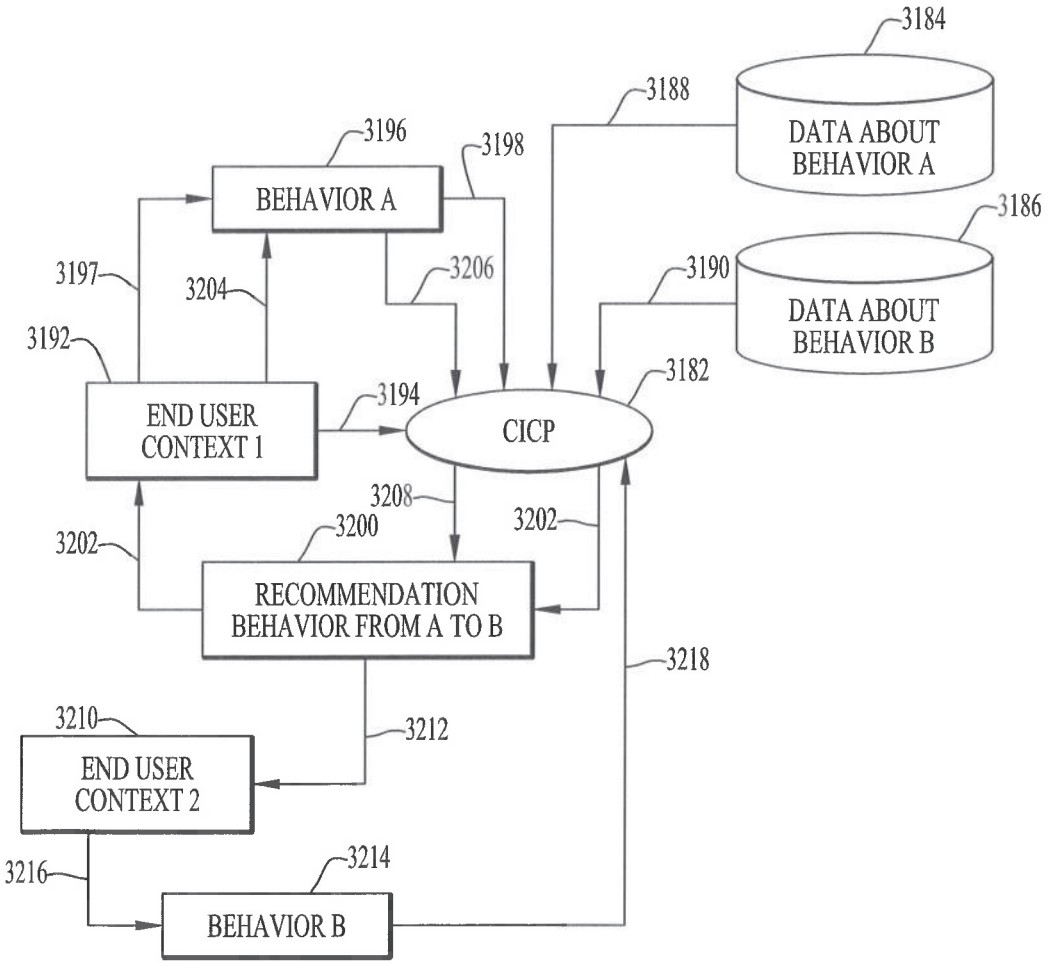

3184
3188
DATA ABOUT BEHAVIOR A
3196
3198
BEHAVIOR A
3186
3197
3204
3206
3190
DATA ABOUT BEHAVIOR B
3192
3182
3194
END USER CONTEXT 1
CICP
3208
3202
3200
3202
RECOMMENDATION BEHAVIOR FROM A TO B
3218
3210
3212
END USER CONTEXT 2
3216
3214
BEHAVIOR B

FIG. 96

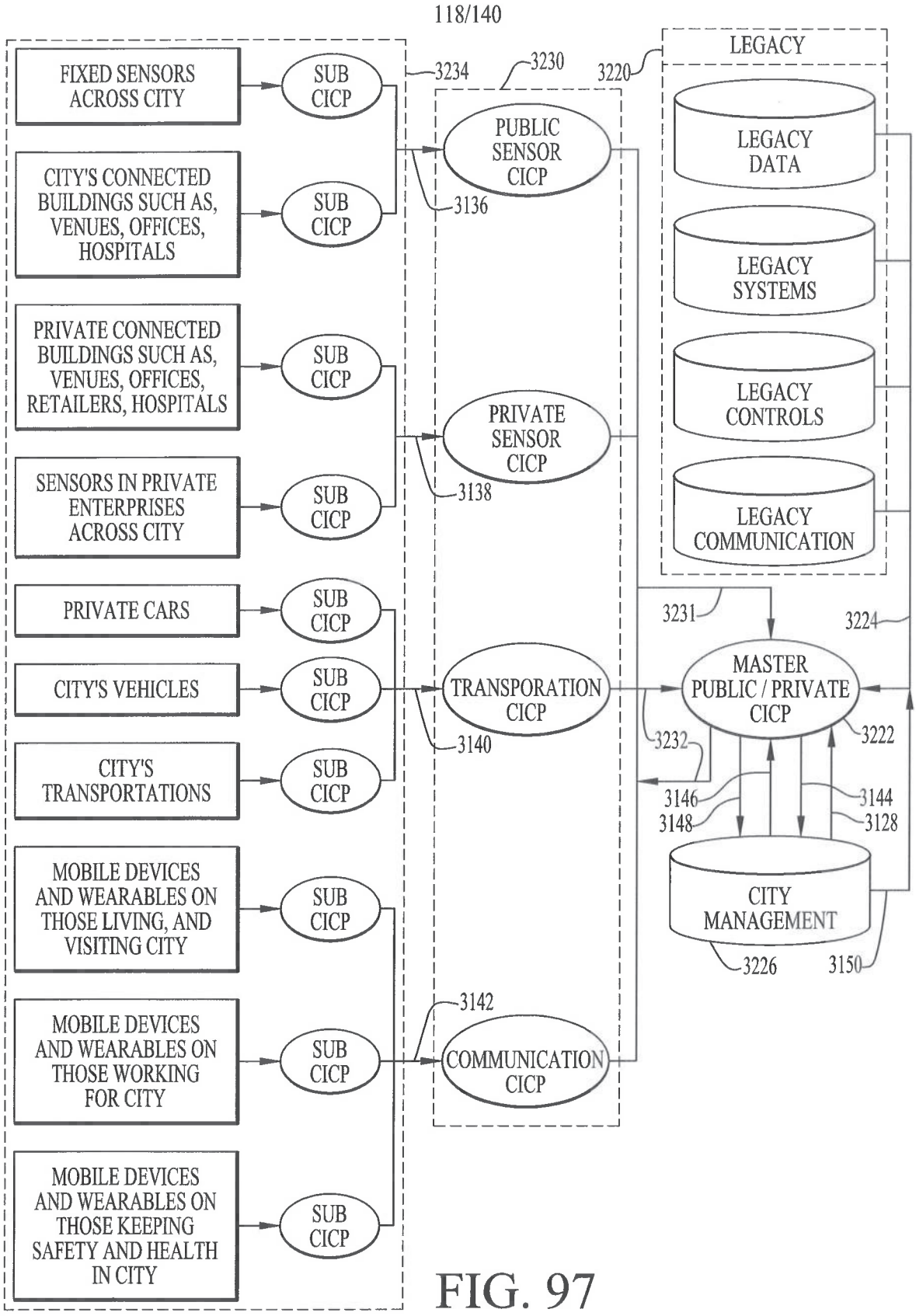

118/140
FIXED SENSORS ACROSS CITY
CITY'S CONNECTED BUILDINGS SUCH AS, VENUES, OFFICES, HOSPITALS
PRIVATE CONNECTED BUILDINGS SUCH AS, VENUES, OFFICES, RETAILERS, HOSPITALS
SENSORS IN PRIVATE ENTERPRISES ACROSS CITY
PRIVATE CARS
CITY'S VEHICLES
CITY'S TRANSPORTATIONS
MOBILE DEVICES AND WEARABLES ON THOSE LIVING, AND VISITING CITY
MOBILE DEVICES AND WEARABLES ON THOSE WORKING FOR CITY
MOBILE DEVICES AND WEARABLES ON THOSE KEEPING SAFETY AND HEALTH IN CITY
SUB CICP
3234
3230
3220
PUBLIC SENSOR CICP
3136
PRIVATE SENSOR CICP
3138
TRANSPORATION CICP
3140
3142
COMMUNICATION CICP
LEGACY
LEGACY DATA
LEGACY SYSTEMS
LEGACY CONTROLS
LEGACY COMMUNICATION
3231
3224
MASTER PUBLIC / PRIVATE CICP
3222
3232
3146
3148
3144
3128
CITY MANAGEMENT
3226
3150

FIG. 97

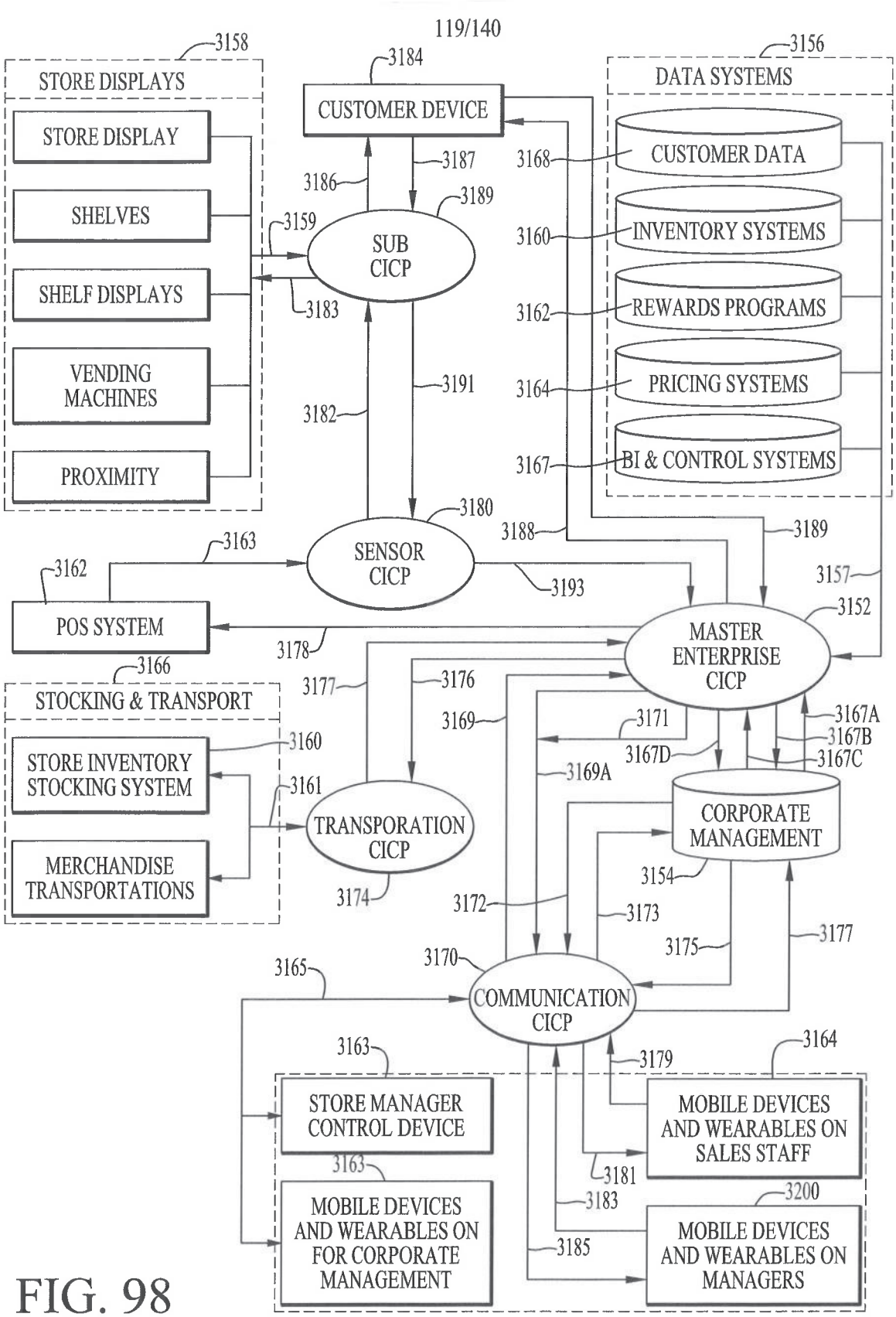

119/140
3158
STORE DISPLAYS
STORE DISPLAY
SHELVES
SHELF DISPLAYS
VENDING MACHINES
PROXIMITY
3184
CUSTOMER DEVICE
3186
3187
3189
3159
SUB CICP
3183
3191
3182
3180
3163
3162
POS SYSTEM
SENSOR CICP
3193
3178
3166
STOCKING & TRANSPORT
STORE INVENTORY STOCKING SYSTEM
MERCHANDISE TRANSPORTATIONS
3160
3161
TRANSPORATION CICP
3174
3156
DATA SYSTEMS
CUSTOMER DATA
INVENTORY SYSTEMS
REWARDS PROGRAMS
PRICING SYSTEMS
BI & CONTROL SYSTEMS
3168
3160
3162
3164
3167
3188
3189
3157
3152
MASTER ENTERPRISE CICP
3177
3176
3169
3171
3167A
3167B
3167C
3167D
3169A
CORPORATE MANAGEMENT
3154
3172
3173
3175
3177
3170
3165
COMMUNICATION CICP
3163
3164
3179
STORE MANAGER CONTROL DEVICE
MOBILE DEVICES AND WEARABLES ON SALES STAFF
3181
3163
MOBILE DEVICES AND WEARABLES ON FOR CORPORATE MANAGEMENT
3183
3200
3185
MOBILE DEVICES AND WEARABLES ON MANAGERS

FIG. 98

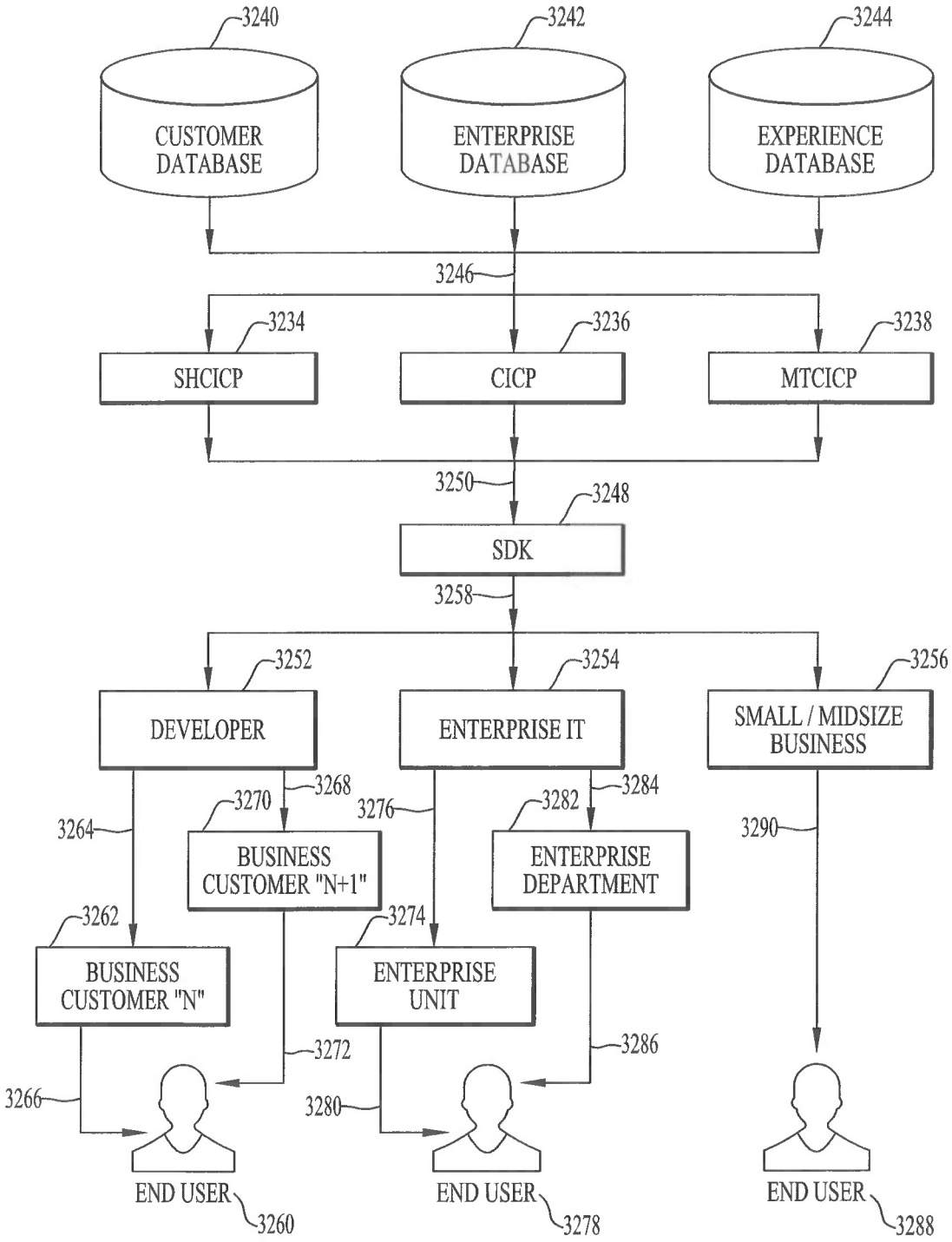

3240
3242
3244
CUSTOMER DATABASE
ENTERPRISE DATABASE
EXPERIENCE DATABASE
3246
3234
3236
3238
SHCICP
CICP
MTCICP
3250
3248
SDK
3258
3252
3254
3256
DEVELOPER
ENTERPRISE IT
SMALL / MIDSIZE BUSINESS
3264
3270
3268
3276
3282
3284
3290
BUSINESS CUSTOMER "N+1"
ENTERPRISE DEPARTMENT
3262
3274
BUSINESS CUSTOMER "N"
ENTERPRISE UNIT
3272
3286
3266
3280
END USER
3260
END USER
3278
END USER
3288

FIG. 99

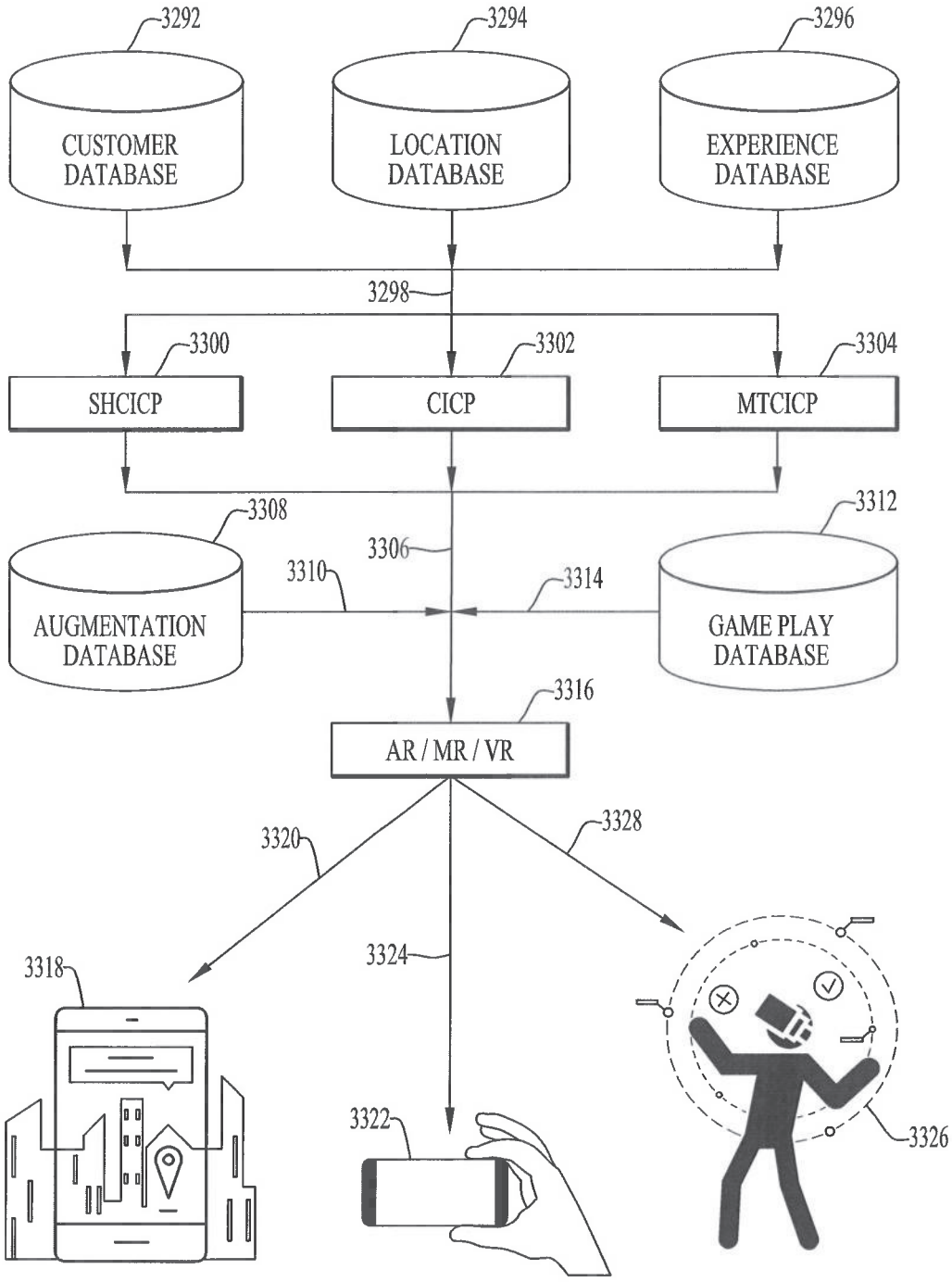

3292
CUSTOMER DATABASE
3294
LOCATION DATABASE
3296
EXPERIENCE DATABASE
3298
3300
SHCICP
3302
CICP
3304
MTCICP
3308
AUGMENTATION DATABASE
3306
3310
3314
3312
GAME PLAY DATABASE
3316
AR / MR / VR
3320
3328
3318
3324
3322
3326

FIG. 100

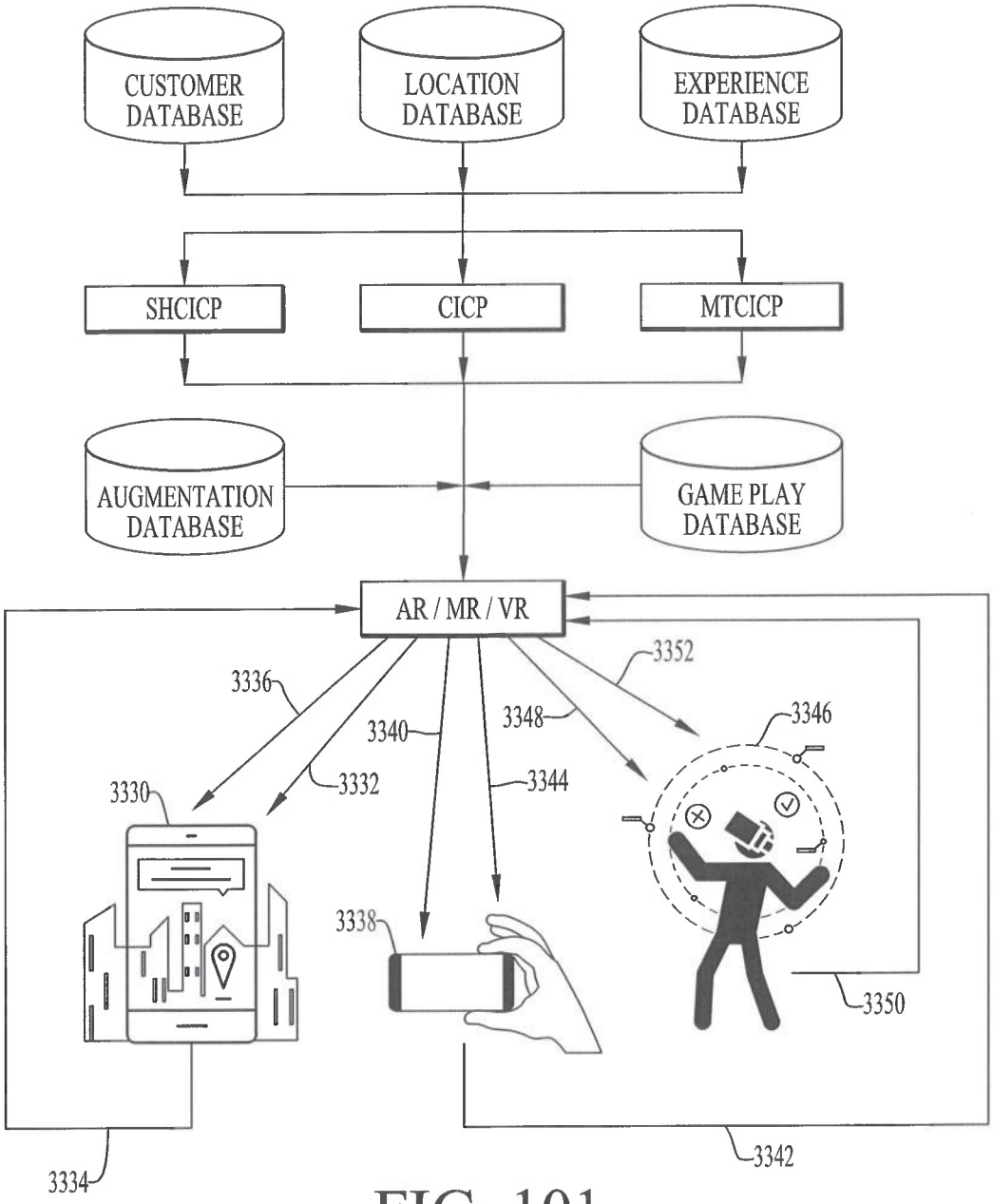

CUSTOMER DATABASE
LOCATION DATABASE
EXPERIENCE DATABASE
SHCICP
CICP
MTCICP
AUGMENTATION DATABASE
GAME PLAY DATABASE
AR / MR / VR
3352
3336
3348
3346
3340
3330
3332
3344
3338
3350
3334
3342

FIG. 101

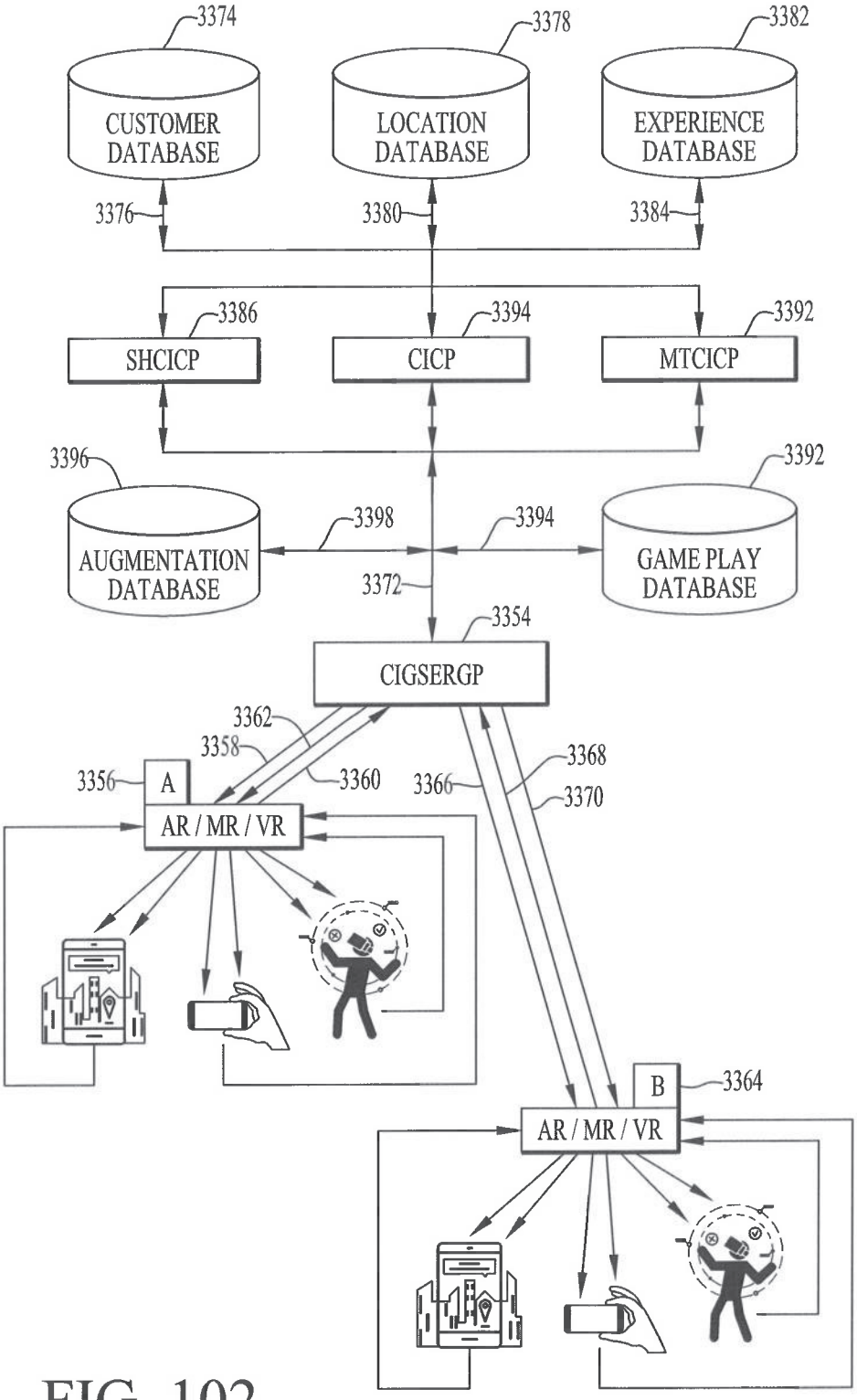

3374
CUSTOMER DATABASE
3378
LOCATION DATABASE
3382
EXPERIENCE DATABASE
3376
3380
3384
3386
SHCICP
3394
CICP
3392
MTCICP
3396
AUGMENTATION DATABASE
3398
3394
3392
GAME PLAY DATABASE
3372
3354
CIGSERGP
3362
3358
3356
A
3360
3366
3368
3370
AR / MR / VR
B
3364
AR / MR / VR

FIG. 102

FIG. 103

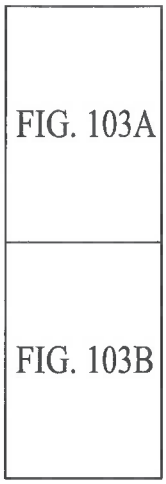
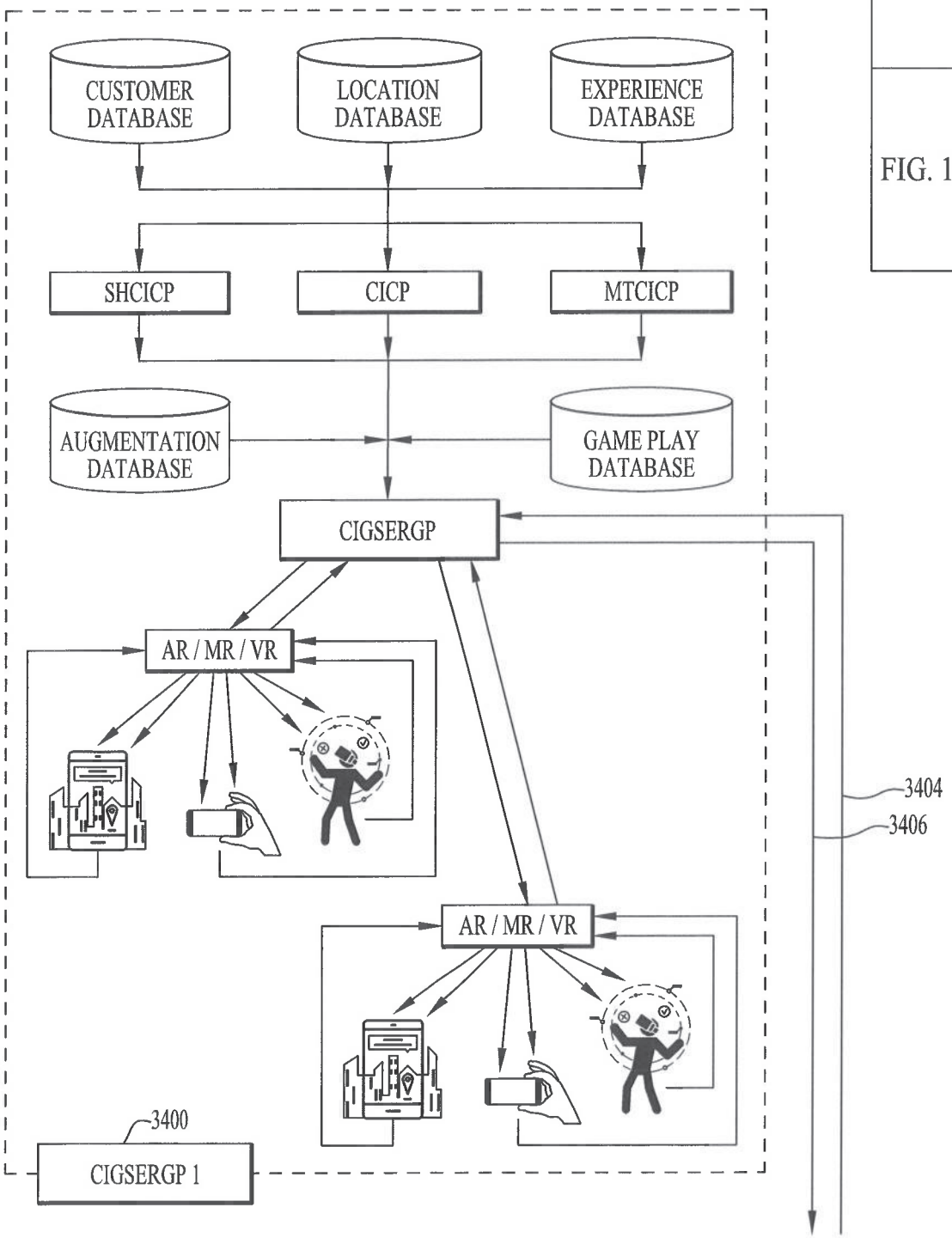


FIG. 103A



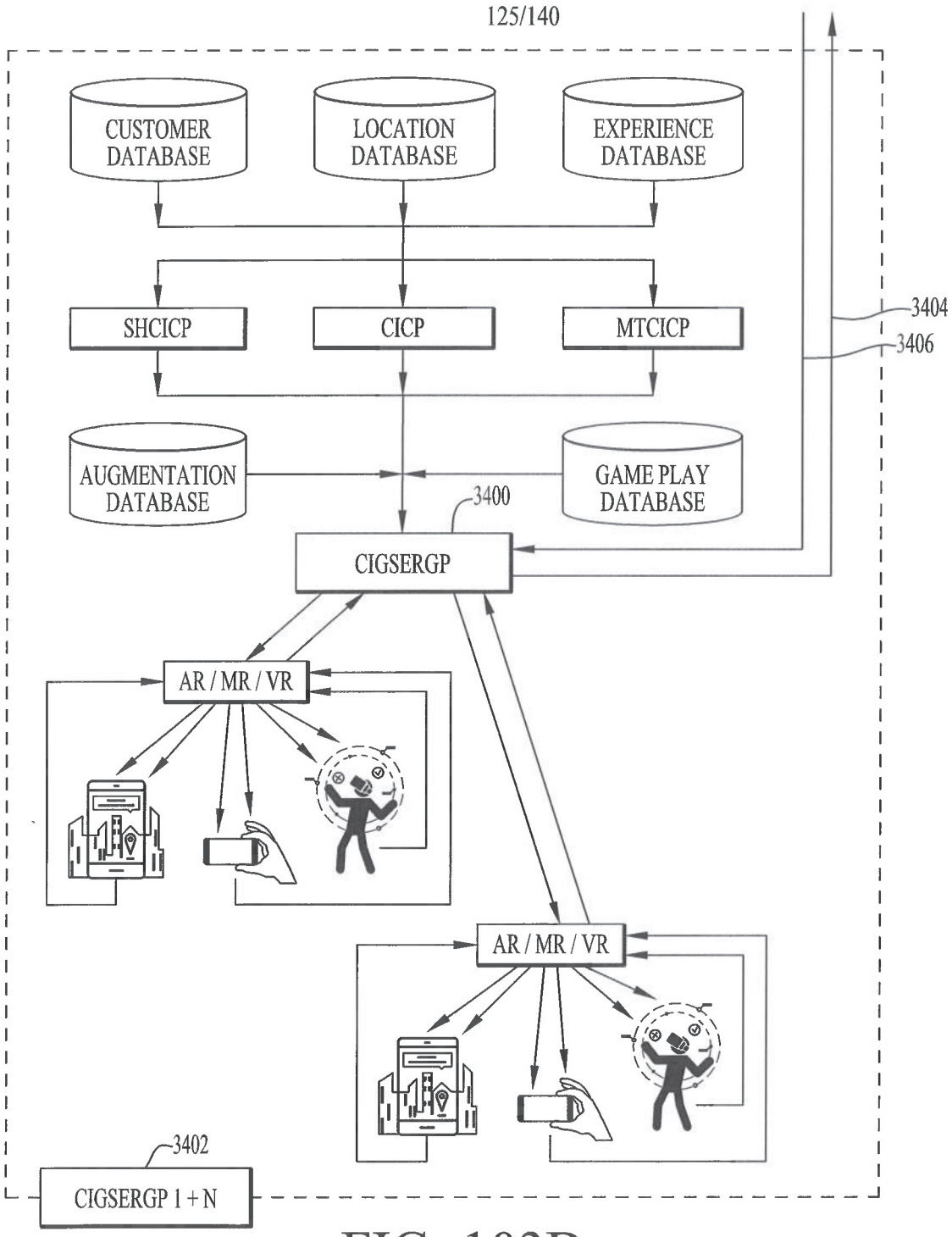

125/140
CUSTOMER DATABASE
LOCATION DATABASE
EXPERIENCE DATABASE
SHCICP
CICP
MTCICP
3404
3406
AUGMENTATION DATABASE
GAME PLAY DATABASE
3400
CIGSERGP
AR / MR / VR
AR / MR / VR
3402
CIGSERGP 1 + N

FIG. 103B

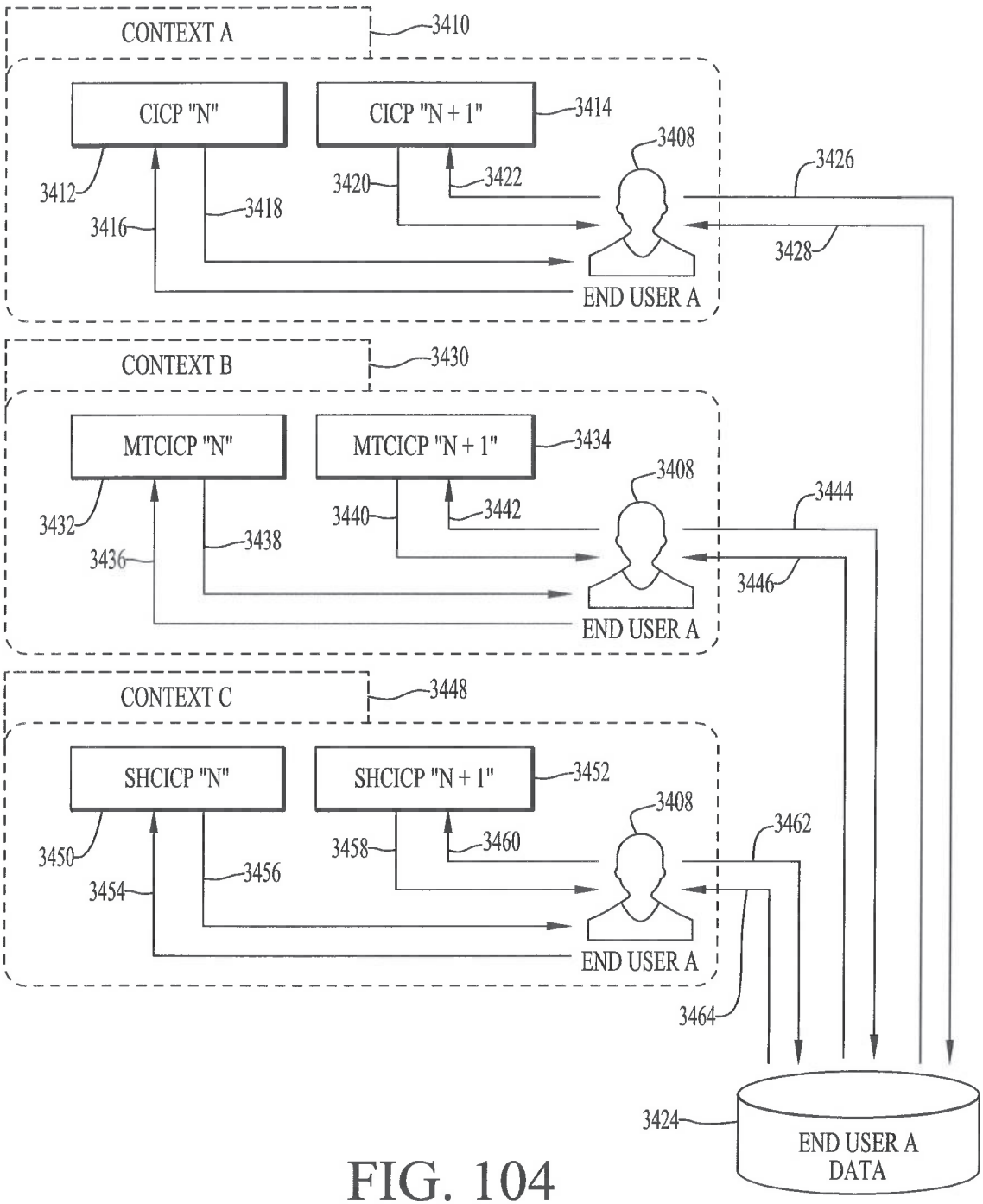

CONTEXT A
3410
CICP "N"
CICP "N + 1"
3414
3408
3412
3420
3422
3426
3418
3416
3428
END USER A
CONTEXT B
3430
MTCICP "N"
MTCICP "N + 1"
3434
3408
3432
3440
3442
3444
3438
3436
3446
END USER A
CONTEXT C
3448
SHCICP "N"
SHCICP "N + 1"
3452
3408
3450
3458
3460
3462
3456
3454
END USER A
3464
3424
END USER A DATA

FIG. 104

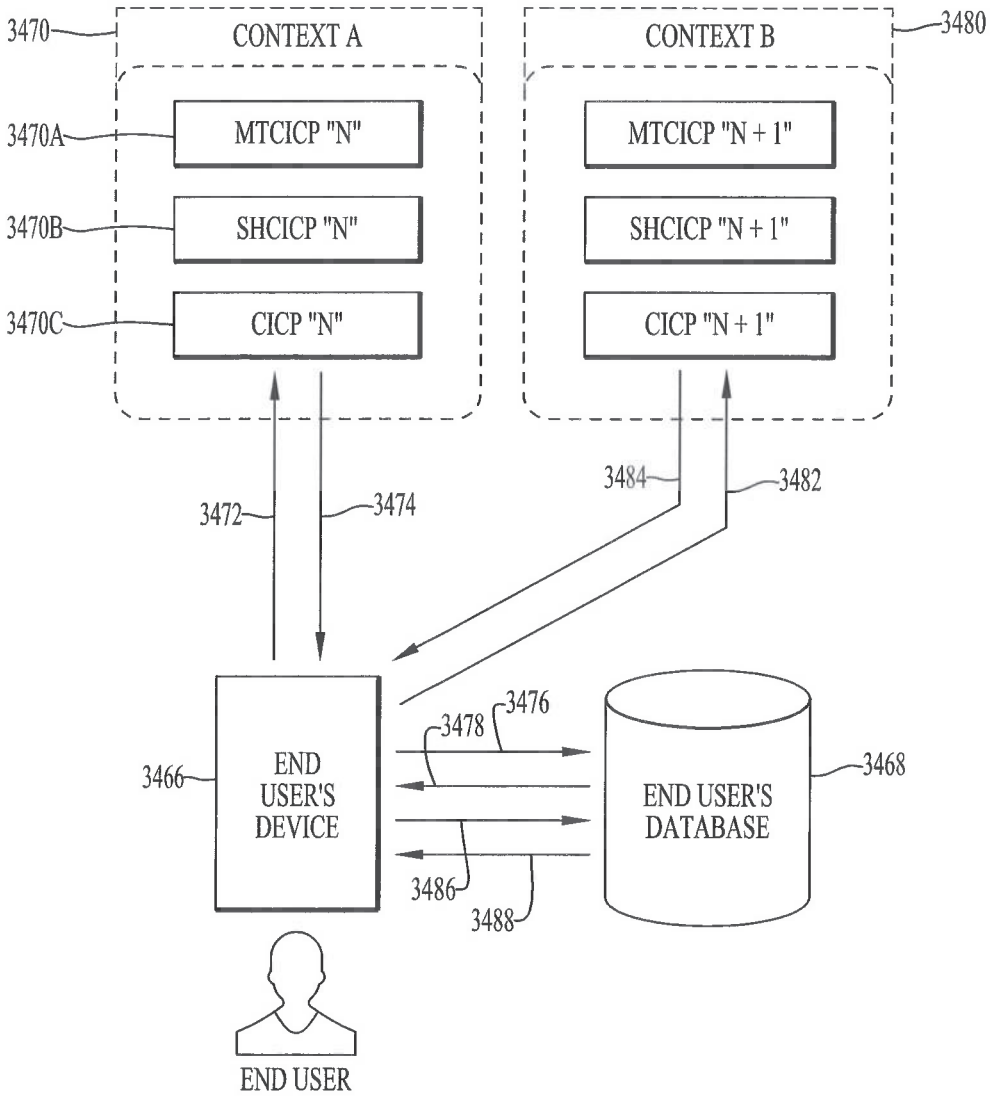

3470
CONTEXT A
3480
CONTEXT B
3470A
MTCICP "N"
MTCICP "N + 1"
3470B
SHCICP "N"
SHCICP "N + 1"
3470C
CICP "N"
CICP "N + 1"
3472
3474
3484
3482
3476
3478
3466
END USER'S DEVICE
END USER'S DATABASE
3468
3486
3488
END USER

FIG. 105

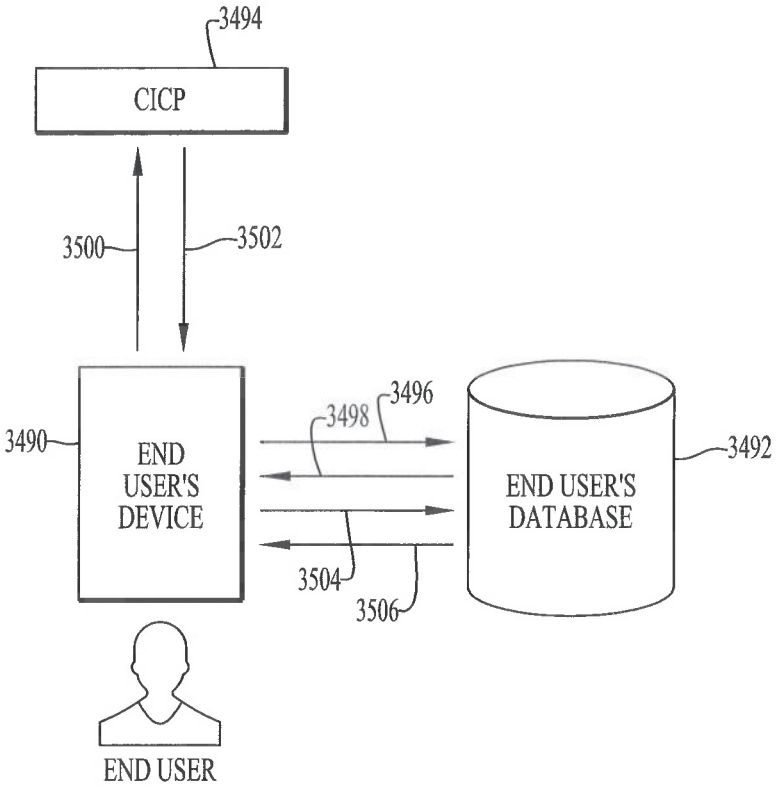

3494
CICP
3500
3502
3490
END USER'S DEVICE
3498
3496
3492
END USER'S DATABASE
3504
3506
END USER

FIG. 106

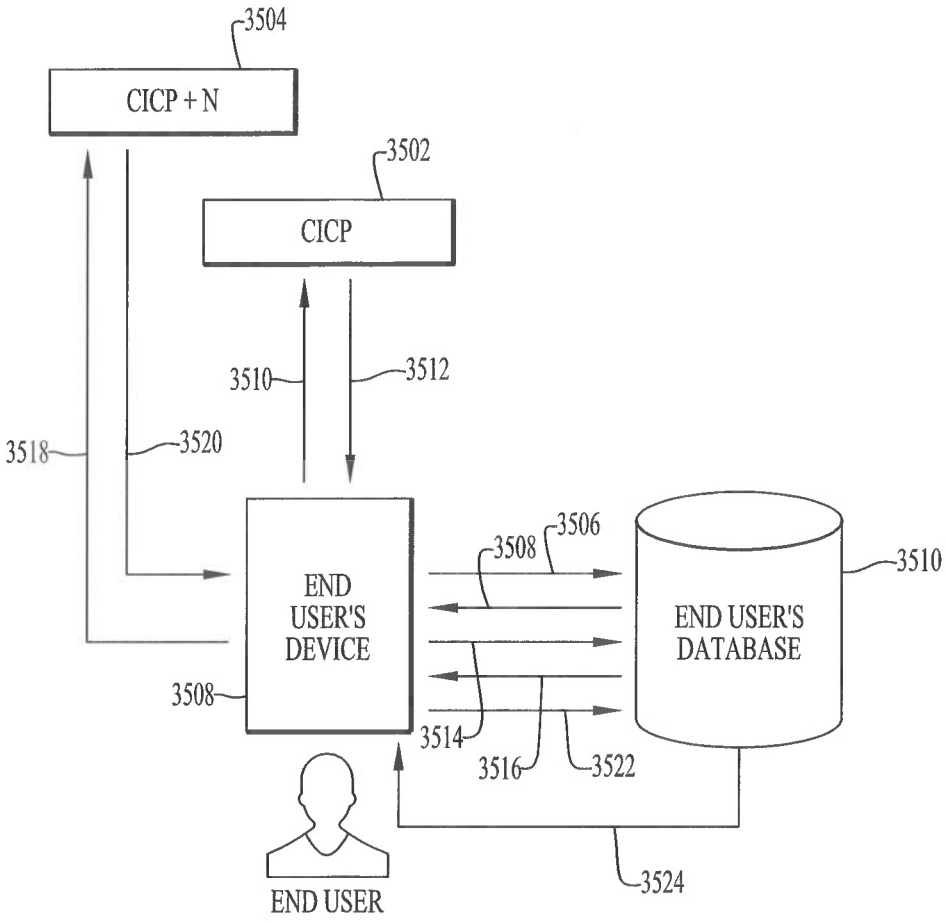

3504
CICP + N
3502
CICP
3510
3512
3518
3520
END USER'S DEVICE
3508
3506
3508
3510
END USER'S DATABASE
3514
3516
3522
3524
END USER

FIG. 107

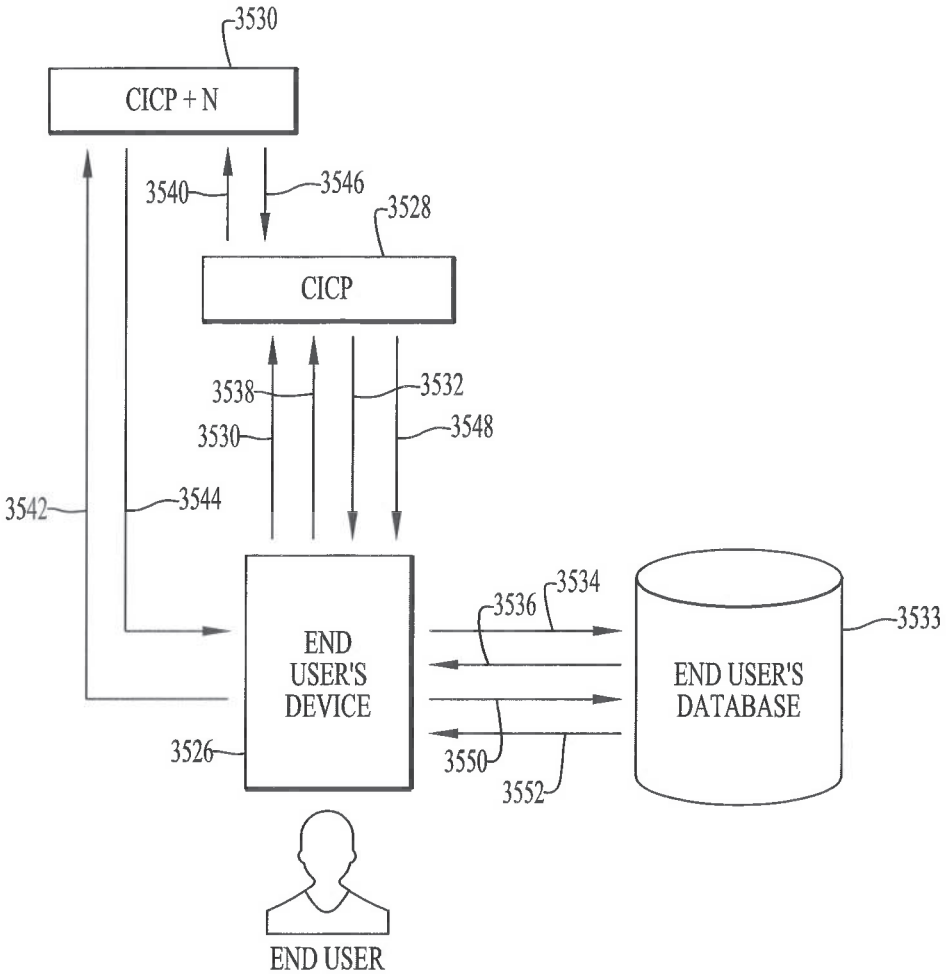

3530
CICP + N
3540
3546
3528
CICP
3538
3532
3530
3548
3542
3544
END USER'S DEVICE
3526
3536
3534
3533
END USER'S DATABASE
3550
3552
END USER

FIG. 108

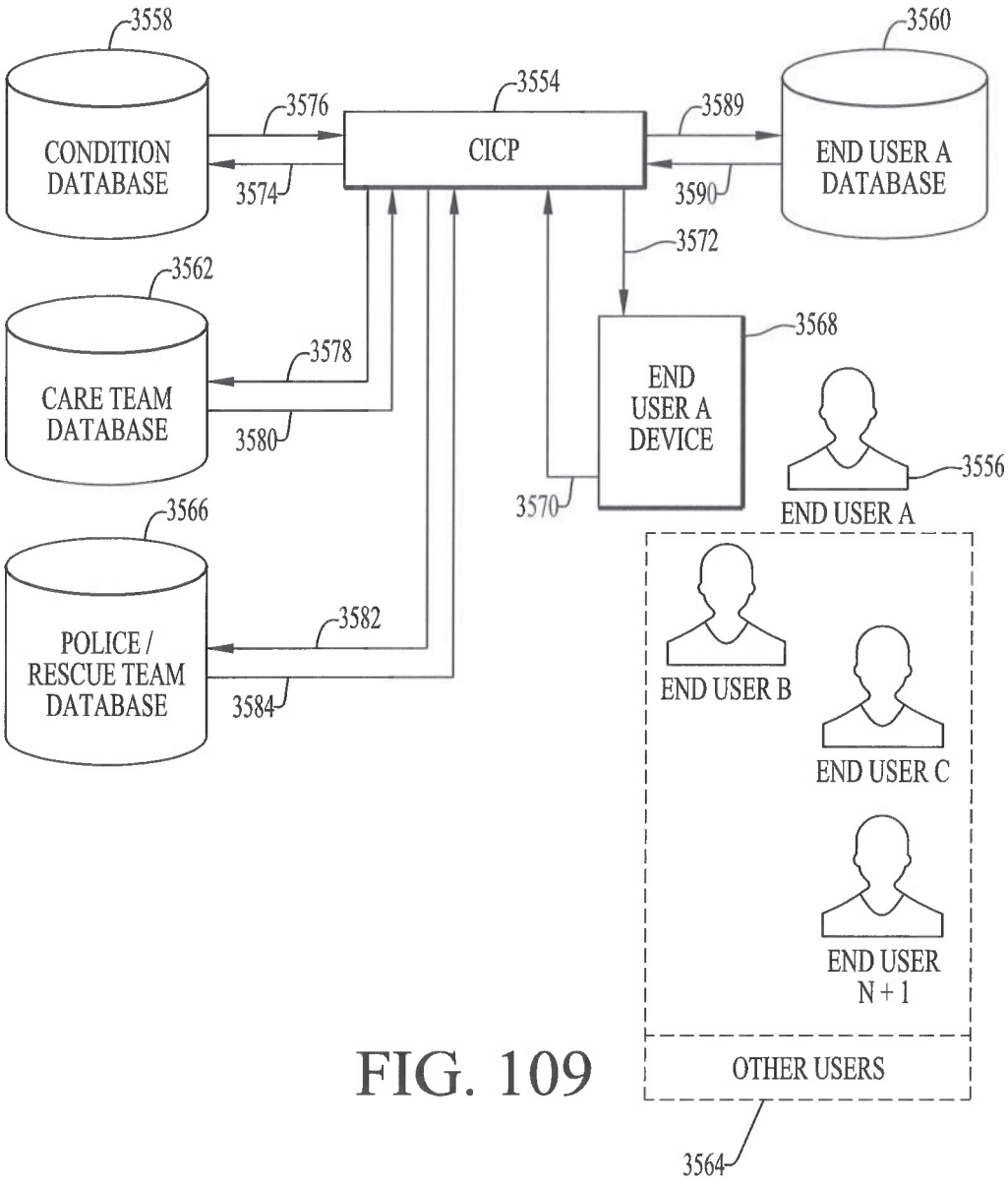

3558
CONDITION DATABASE
3576
3574
3554
CICP
3589
3590
3560
END USER A DATABASE
3572
3562
CARE TEAM DATABASE
3578
3580
3568
END USER A DEVICE
3570
3556
END USER A
3566
POLICE / RESCUE TEAM DATABASE
3582
3584
END USER B
END USER C
END USER N + 1
OTHER USERS
3564

FIG. 109

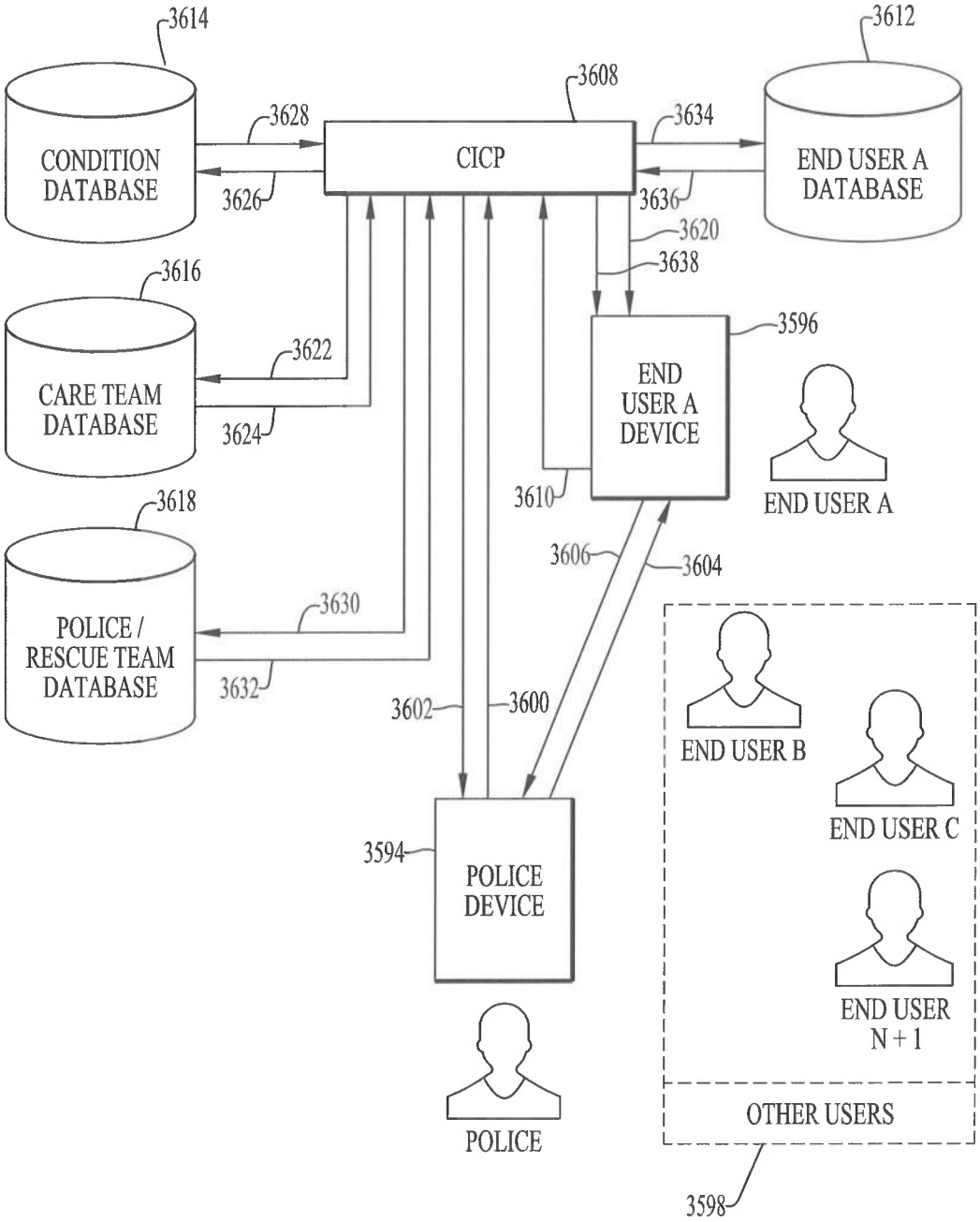

3614
CONDITION DATABASE
3628
3626
CICP
3608
3634
3636
3612
END USER A DATABASE
3620
3638
3616
CARE TEAM DATABASE
3622
3624
3596
END USER A DEVICE
END USER A
3610
3618
POLICE / RESCUE TEAM DATABASE
3630
3632
3606
3604
3602
3600
3594
POLICE DEVICE
POLICE
END USER B
END USER C
END USER N + 1
OTHER USERS
3598

FIG. 110

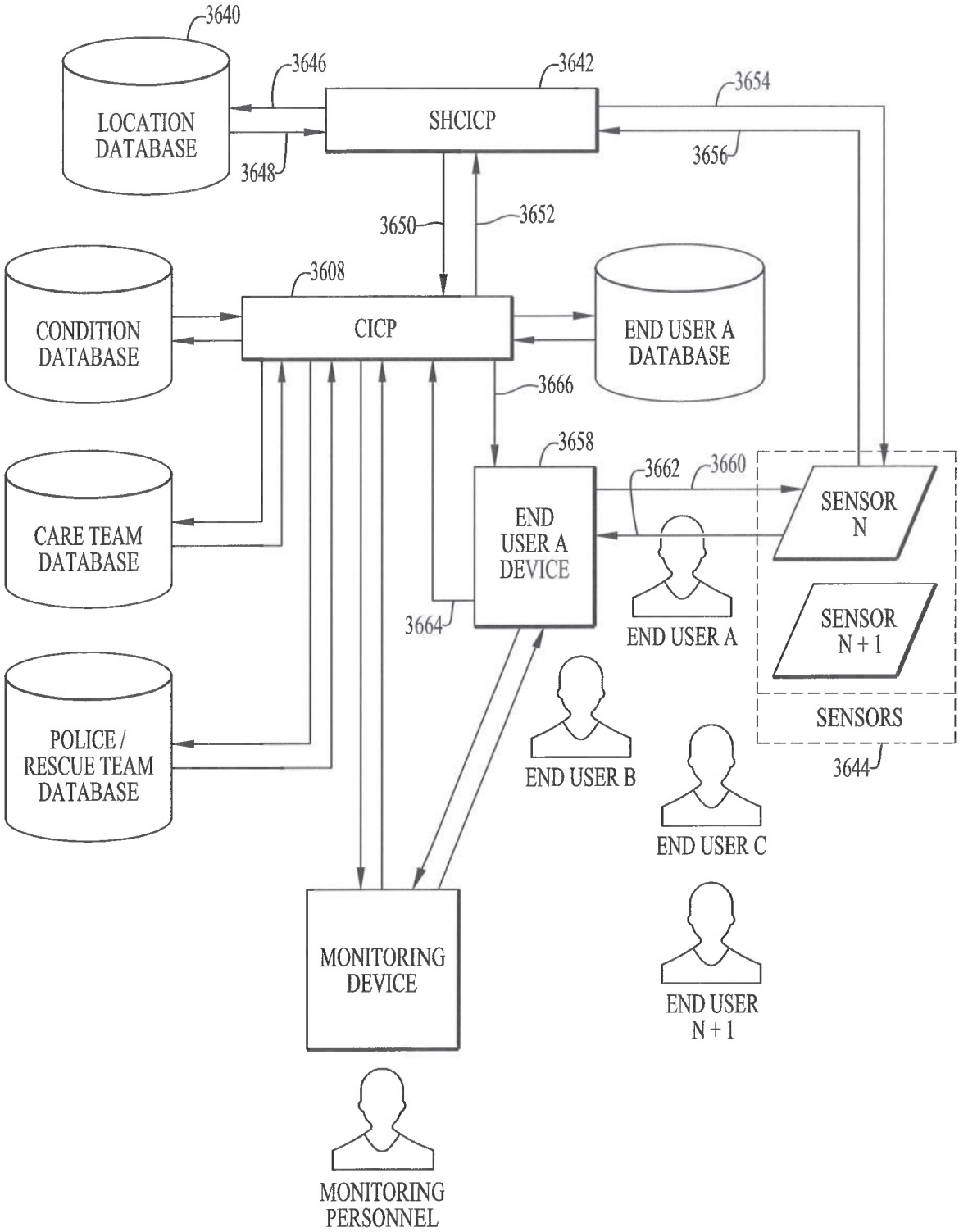

3640
LOCATION DATABASE
3646
3648
3642
SHCICP
3654
3656
3650
3652
3608
CICP
CONDITION DATABASE
END USER A DATABASE
3666
3658
END USER A DEVICE
3662
3660
SENSOR N
SENSOR N + 1
SENSORS
3644
3664
CARE TEAM DATABASE
POLICE / RESCUE TEAM DATABASE
END USER A
END USER B
END USER C
MONITORING DEVICE
END USER N + 1
MONITORING PERSONNEL

FIG. 111

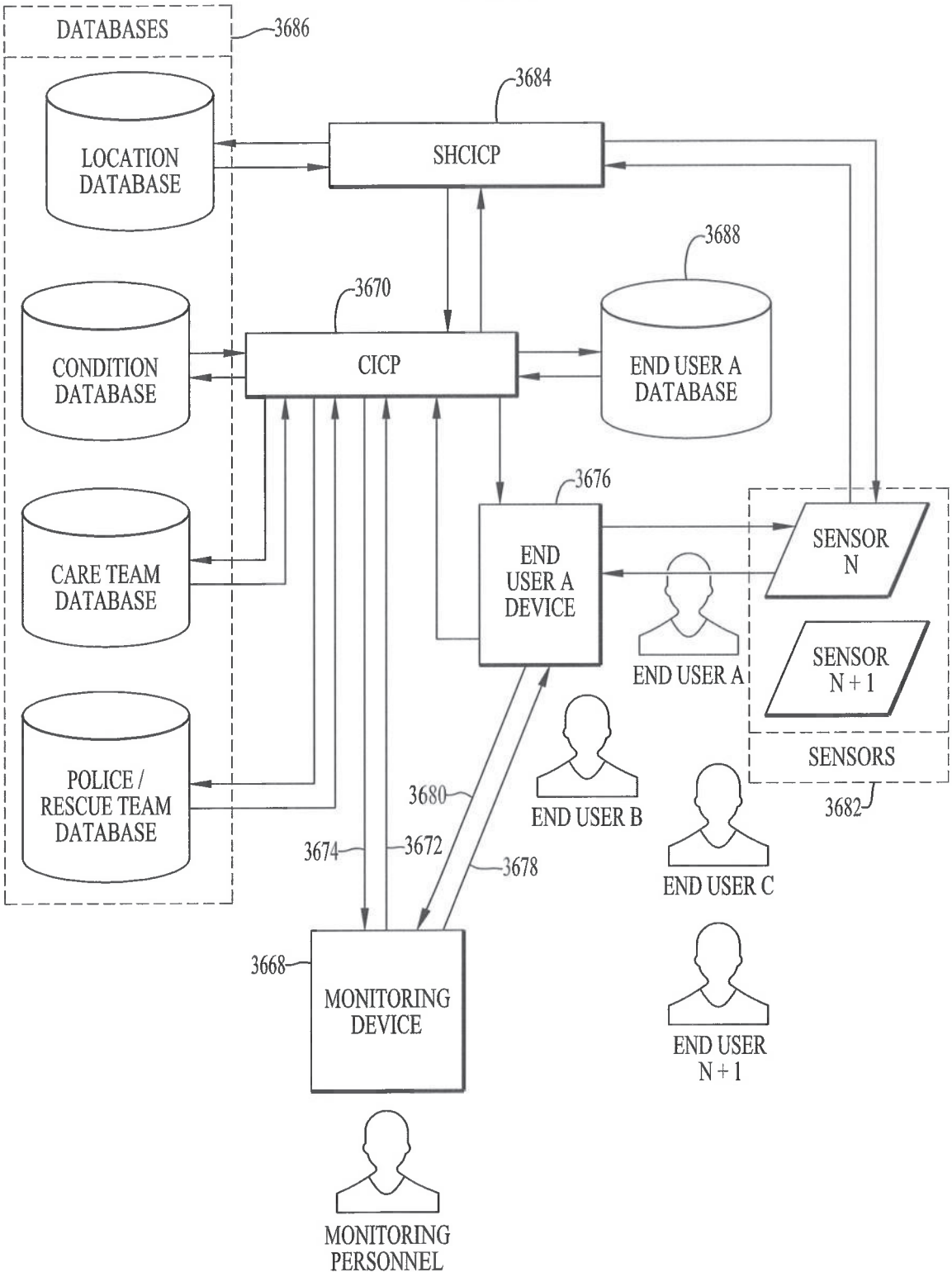

DATABASES
3686
3684
LOCATION DATABASE
SHCICP
3688
3670
CONDITION DATABASE
CICP
END USER A DATABASE
3676
CARE TEAM DATABASE
END USER A DEVICE
SENSOR N
SENSOR N + 1
END USER A
SENSORS
3682
POLICE / RESCUE TEAM DATABASE
3680
END USER B
END USER C
3674
3672
3678
3668
MONITORING DEVICE
END USER N + 1
MONITORING PERSONNEL

FIG. 112

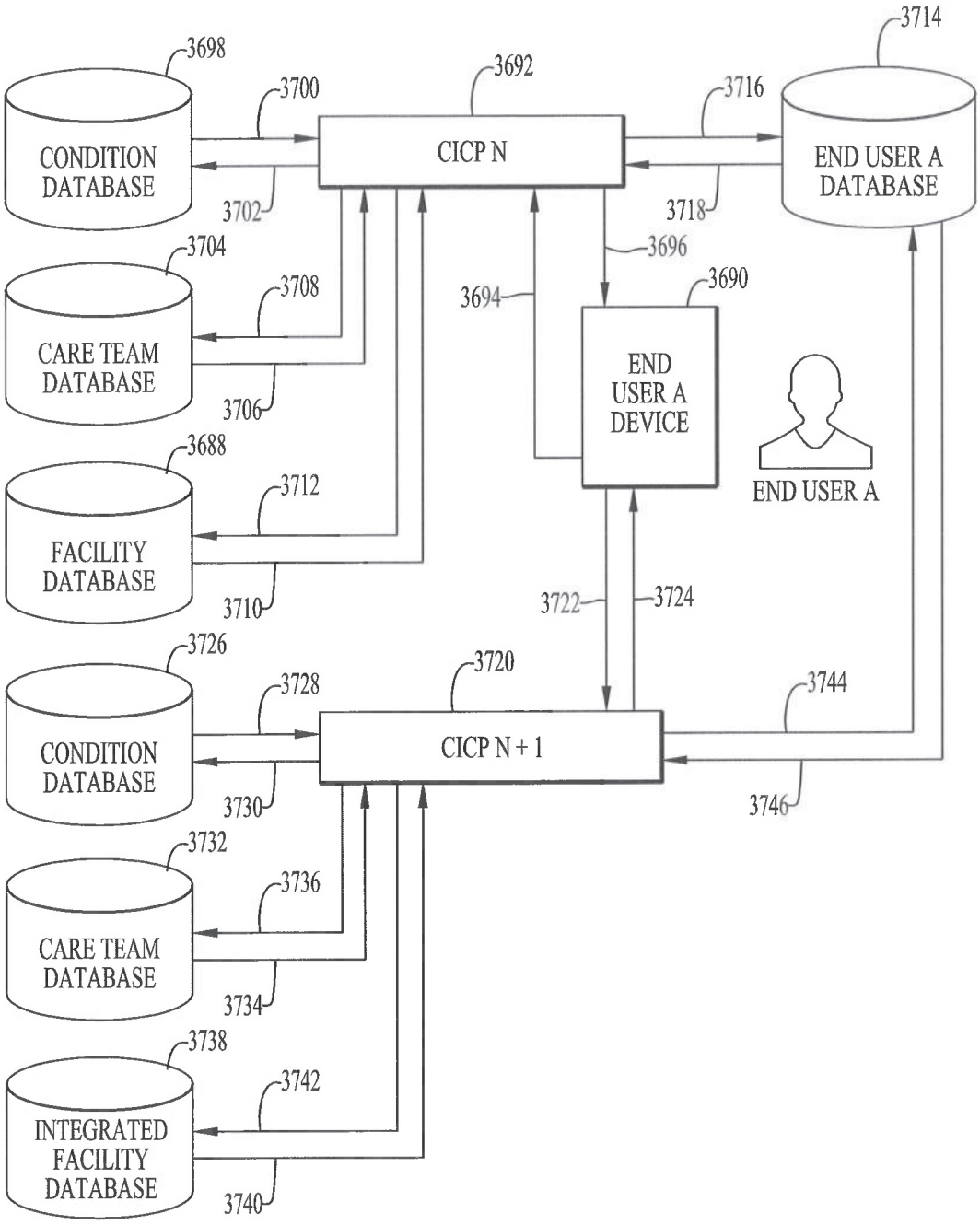

3698
CONDITION DATABASE
3700
3702
3692
CICP N
3716
3718
3714
END USER A DATABASE
3704
CARE TEAM DATABASE
3708
3706
3694
3696
3690
END USER A DEVICE
END USER A
3688
FACILITY DATABASE
3712
3710
3722
3724
3726
CONDITION DATABASE
3728
3730
3720
CICP N + 1
3744
3746
3732
CARE TEAM DATABASE
3736
3734
3738
INTEGRATED FACILITY DATABASE
3742
3740

FIG. 113

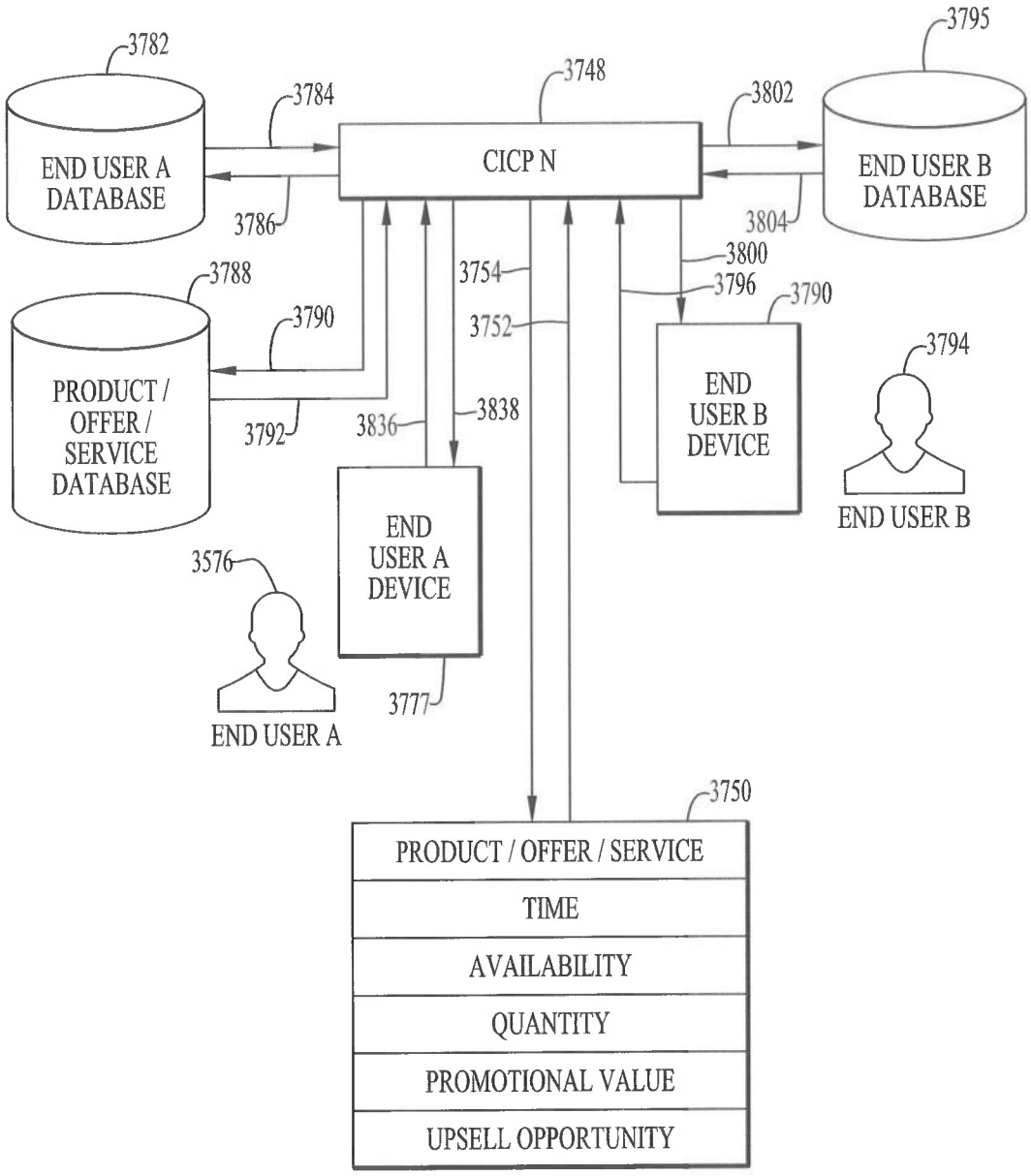

3782
END USER A DATABASE
3784
3748
CICP N
3802
3795
END USER B DATABASE
3786
3804
3800
3796
3790
3788
3790
3754
3752
PRODUCT / OFFER / SERVICE DATABASE
3792
3836
3838
END USER A DEVICE
END USER B DEVICE
3794
END USER B
3576
END USER A
3777
3750
PRODUCT / OFFER / SERVICE
TIME
AVAILABILITY
QUANTITY
PROMOTIONAL VALUE
UPSELL OPPORTUNITY

FIG. 114

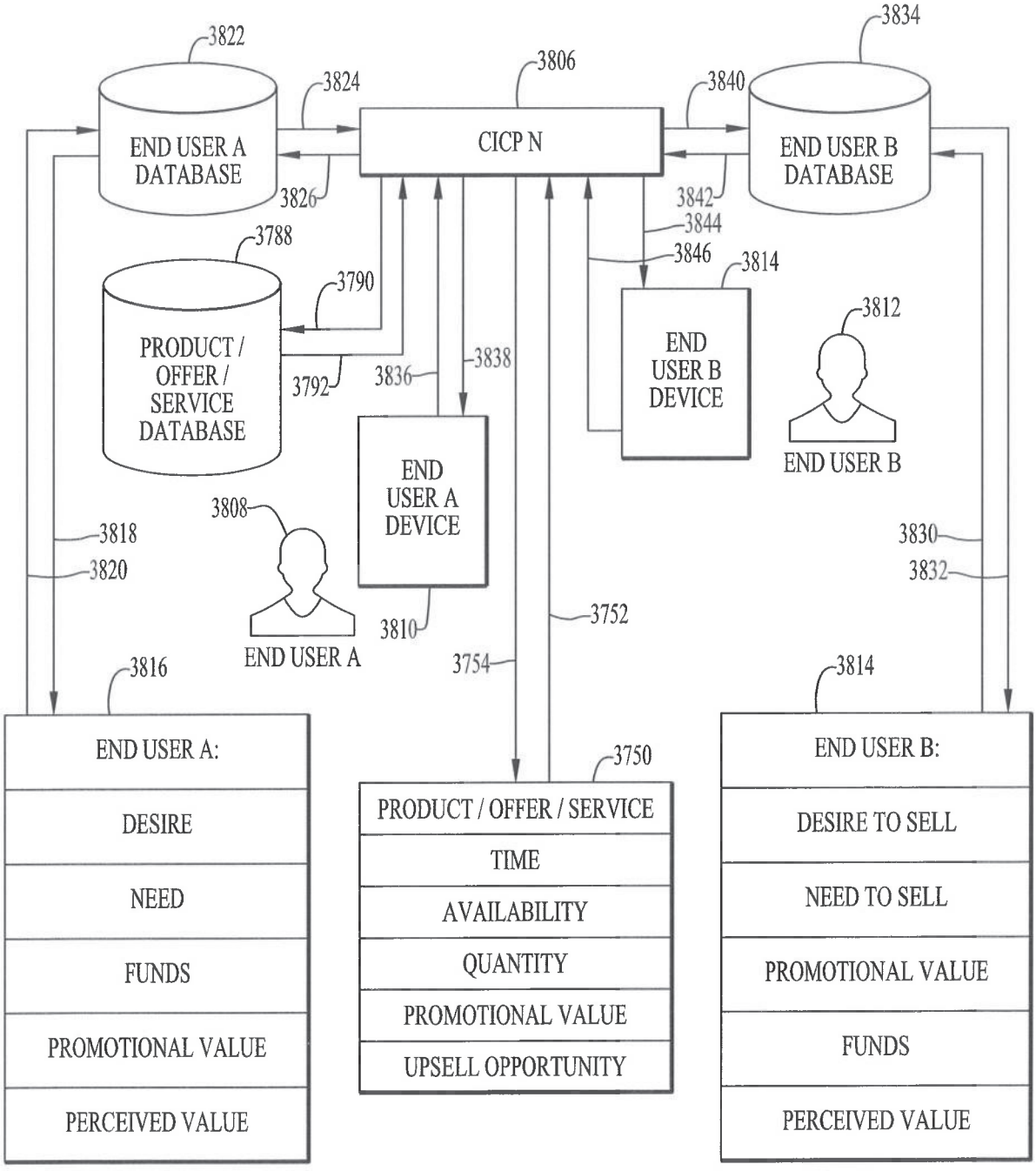

3822
3824
3806
3840
3834
END USER A DATABASE
CICP N
END USER B DATABASE
3826
3842
3844
3846
3788
3790
3814
3812
PRODUCT / OFFER / SERVICE DATABASE
3792
3836
3838
END USER B DEVICE
END USER B
END USER A DEVICE
3808
3818
3820
3830
3832
3810
3752
END USER A
3754
3816
3814
3750
END USER A:
DESIRE
NEED
FUNDS
PROMOTIONAL VALUE
PERCEIVED VALUE
PRODUCT / OFFER / SERVICE
TIME
AVAILABILITY
QUANTITY
PROMOTIONAL VALUE
UPSELL OPPORTUNITY
END USER B:
DESIRE TO SELL
NEED TO SELL
PROMOTIONAL VALUE
FUNDS
PERCEIVED VALUE

FIG. 115

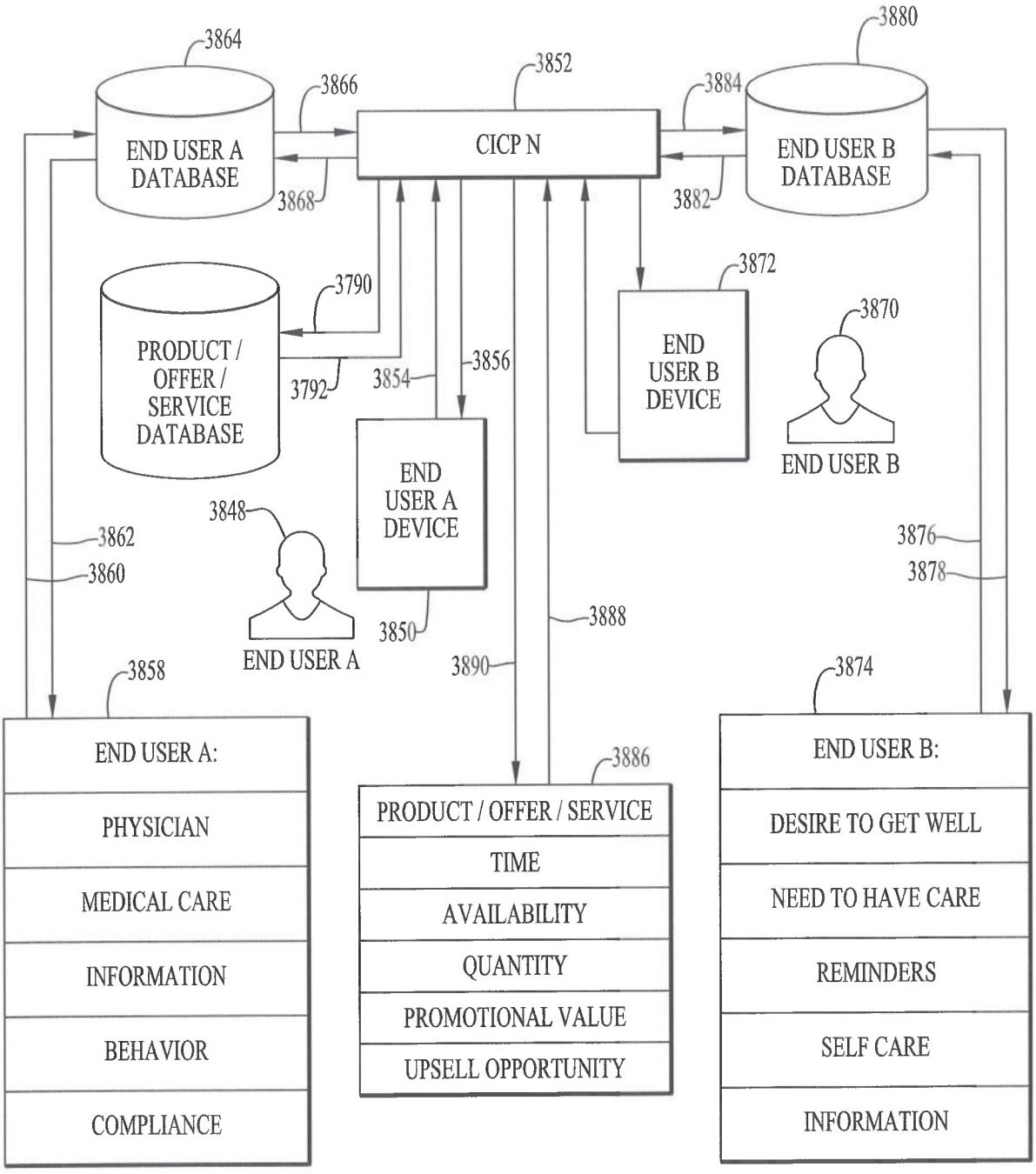

3864
3866
3852
3880
3884
END USER A DATABASE
CICP N
END USER B DATABASE
3868
3882
3790
3872
PRODUCT / OFFER / SERVICE DATABASE
END USER B DEVICE
3870
3792
3854
3856
END USER B
END USER A DEVICE
3848
3862
3876
3860
3878
3850
3888
END USER A
3890
3858
3874
END USER A:
3886
END USER B:
PRODUCT / OFFER / SERVICE
PHYSICIAN
TIME
DESIRE TO GET WELL
MEDICAL CARE
AVAILABILITY
NEED TO HAVE CARE
INFORMATION
QUANTITY
REMINDERS
BEHAVIOR
PROMOTIONAL VALUE
SELF CARE
COMPLIANCE
UPSELL OPPORTUNITY
INFORMATION

FIG. 116

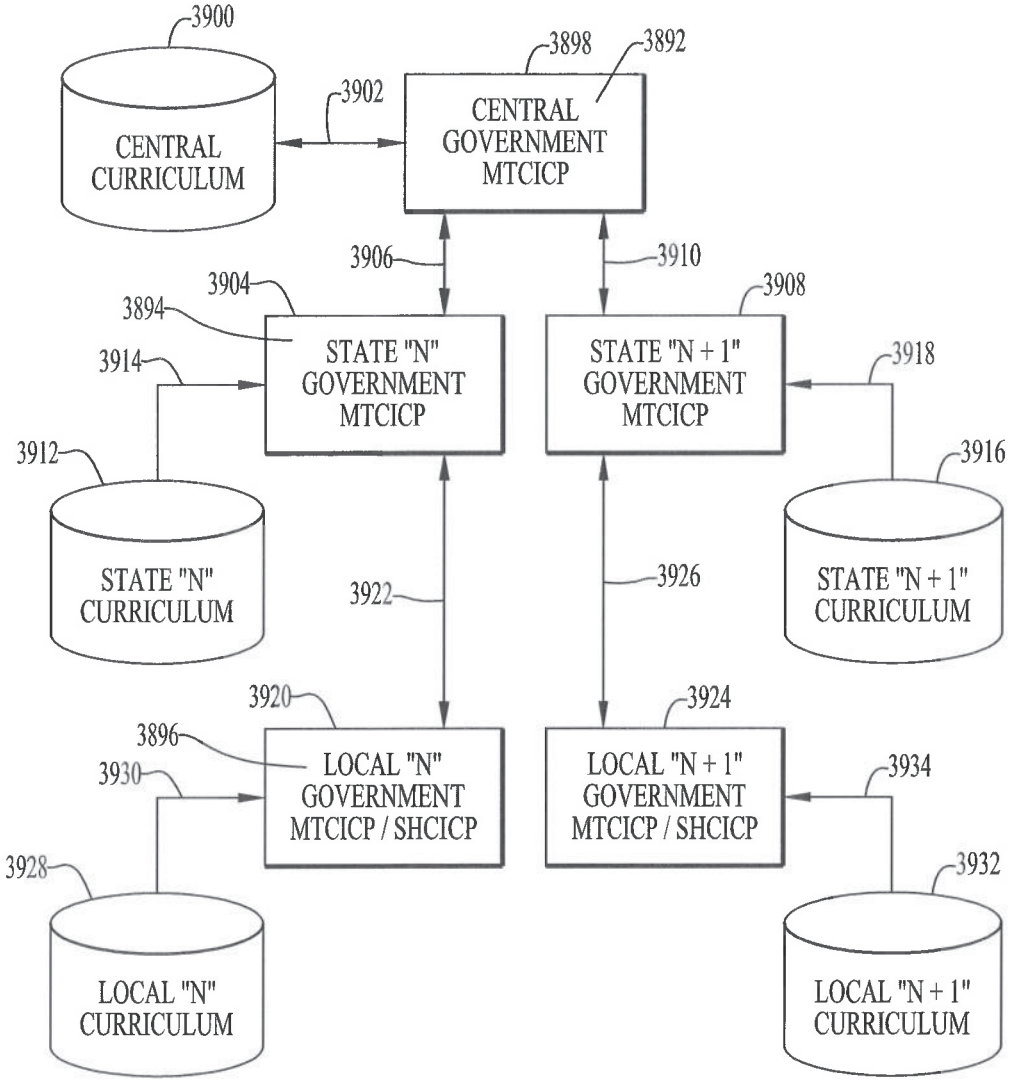

3900
CENTRAL CURRICULUM
3902
3898
3892
CENTRAL GOVERNMENT MTCICP
3906
3910
3904
3894
3908
STATE "N" GOVERNMENT MTCICP
STATE "N + 1" GOVERNMENT MTCICP
3914
3918
3912
3916
STATE "N" CURRICULUM
STATE "N + 1" CURRICULUM
3922
3926
3920
3924
3896
LOCAL "N" GOVERNMENT MTCICP / SHCICP
LOCAL "N + 1" GOVERNMENT MTCICP / SHCICP
3930
3934
3928
3932
LOCAL "N" CURRICULUM
LOCAL "N + 1" CURRICULUM

FIG. 117

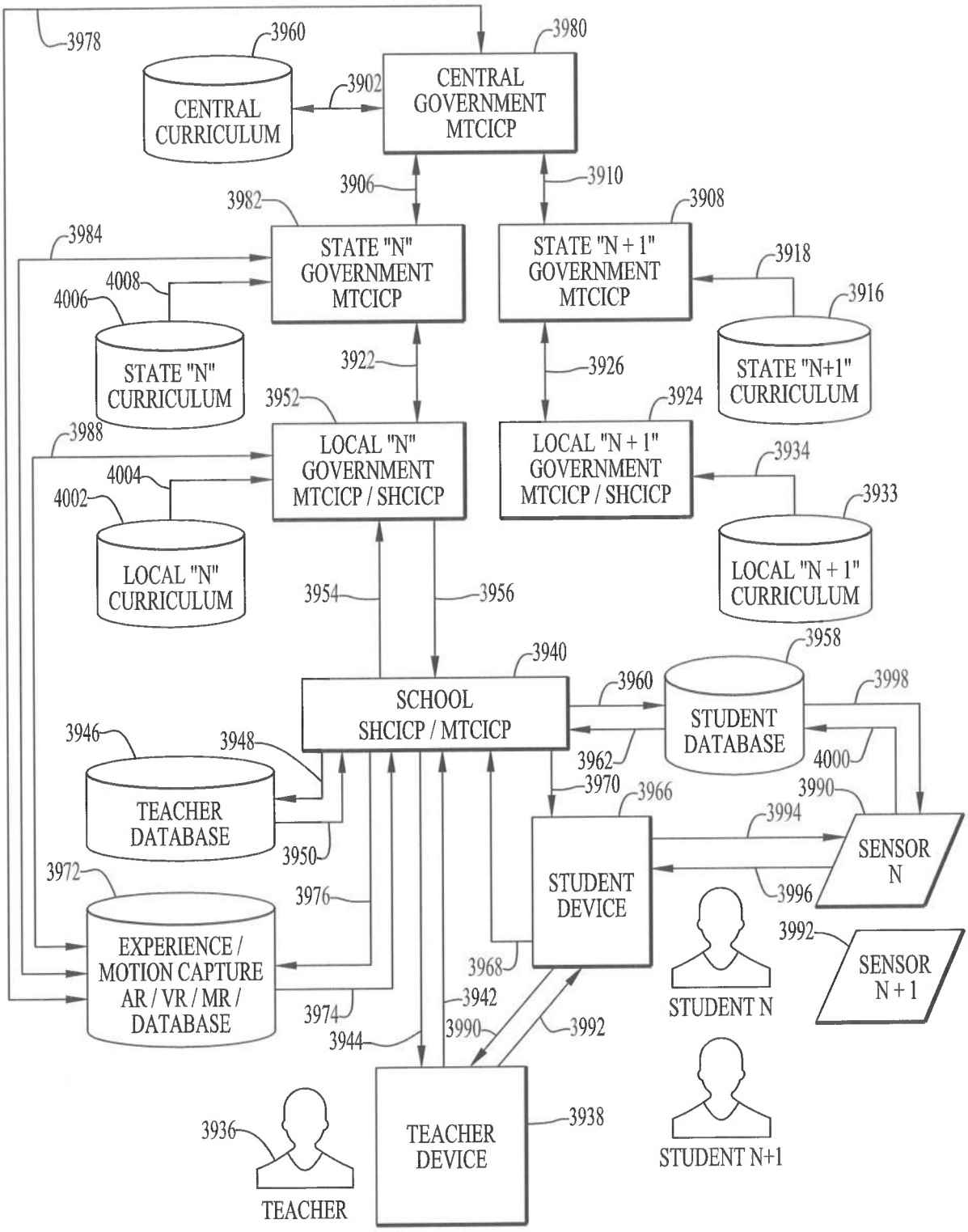

3978
3960
3980
CENTRAL CURRICULUM
3902
CENTRAL GOVERNMENT MTCICP
3906
3910
3982
3908
3984
STATE "N" GOVERNMENT MTCICP
STATE "N + 1" GOVERNMENT MTCICP
3918
4008
4006
3916
STATE "N" CURRICULUM
3922
3926
STATE "N+1" CURRICULUM
3952
3924
3988
LOCAL "N" GOVERNMENT MTCICP / SHCICP
LOCAL "N + 1" GOVERNMENT MTCICP / SHCICP
3934
4004
4002
3933
LOCAL "N" CURRICULUM
3954
3956
LOCAL "N + 1" CURRICULUM
3958
3940
3960
3998
SCHOOL SHCICP / MTCICP
STUDENT DATABASE
3946
3948
3962
4000
3970
3966
3990
TEACHER DATABASE
3994
SENSOR N
3950
3972
STUDENT DEVICE
3976
3996
3992
EXPERIENCE / MOTION CAPTURE AR / VR / MR / DATABASE
3968
SENSOR N + 1
STUDENT N
3942
3974
3990
3992
3944
STUDENT N+1
TEACHER DEVICE
3938
3936
TEACHER

FIG. 118