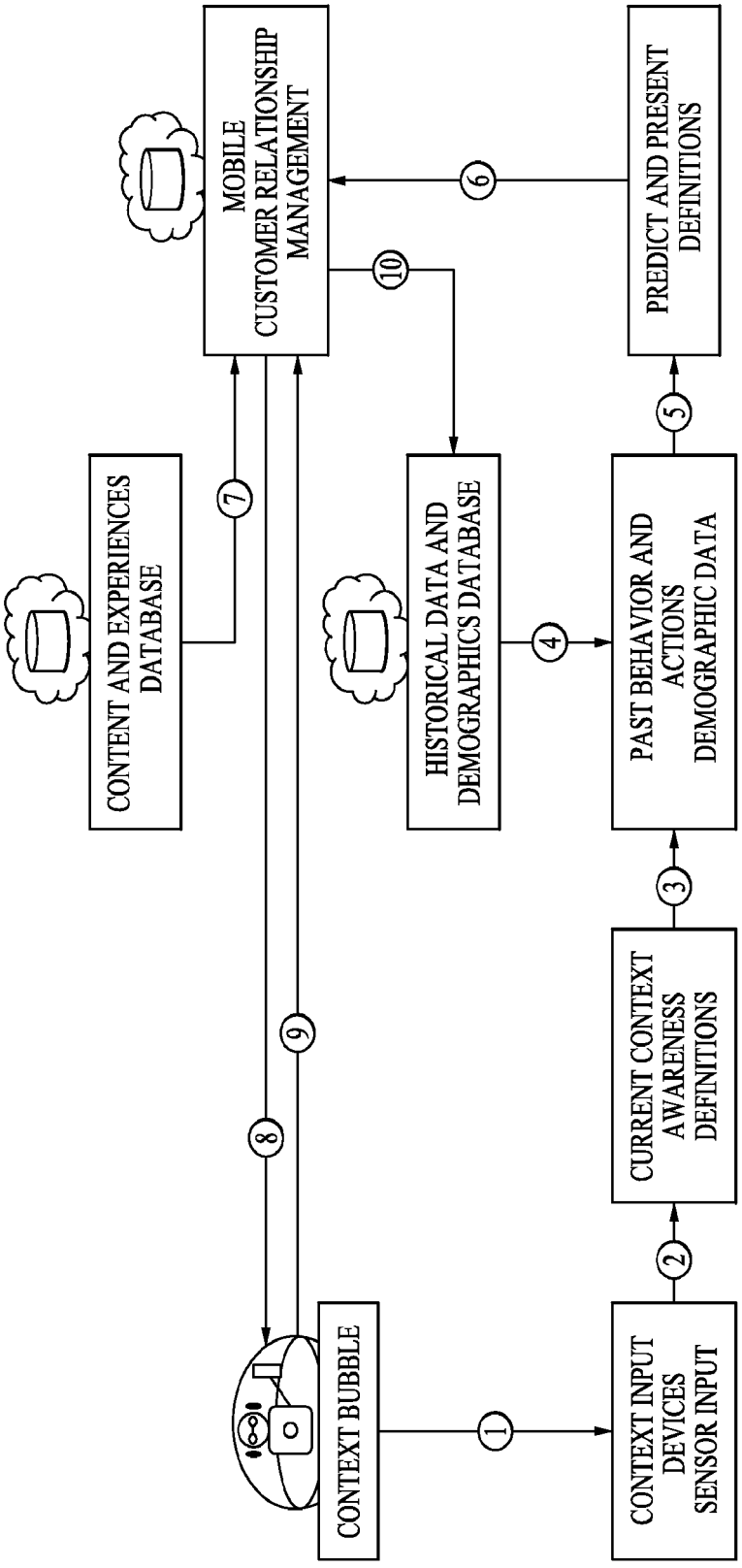

CONTEXT BUBBLE
CONTEXT INPUT DEVICES SENSOR INPUT
CURRENT CONTEXT AWARENESS DEFINITIONS
PAST BEHAVIOR AND ACTIONS DEMOGRAPHIC DATA
HISTORICAL DATA AND DEMOGRAPHICS DATABASE
CONTENT AND EXPERIENCES DATABASE
MOBILE CUSTOMER RELATIONSHIP MANAGEMENT
PREDICT AND PRESENT DEFINITIONS
1
2
3
4
5
6
7
8
9
10

FIG. 1

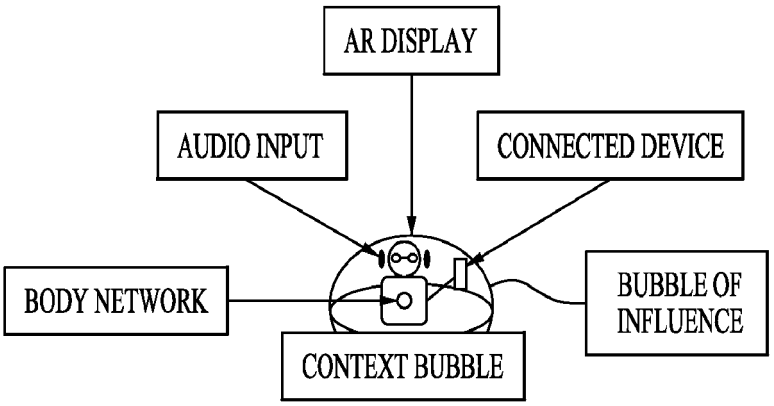

AR DISPLAY
AUDIO INPUT
CONNECTED DEVICE
BODY NETWORK
BUBBLE OF INFLUENCE
CONTEXT BUBBLE

FIG. 2

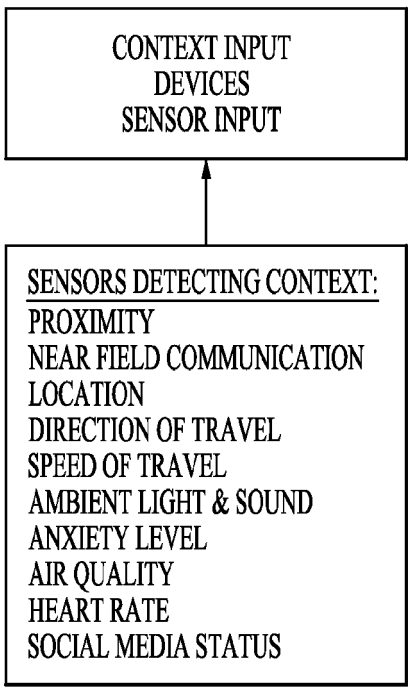

CONTEXT INPUT
DEVICES
SENSOR INPUT
SENSORS DETECTING CONTEXT:
PROXIMITY
NEAR FIELD COMMUNICATION
LOCATION
DIRECTION OF TRAVEL
SPEED OF TRAVEL
AMBIENT LIGHT & SOUND
ANXIETY LEVEL
AIR QUALITY
HEART RATE
SOCIAL MEDIA STATUS

FIG. 3

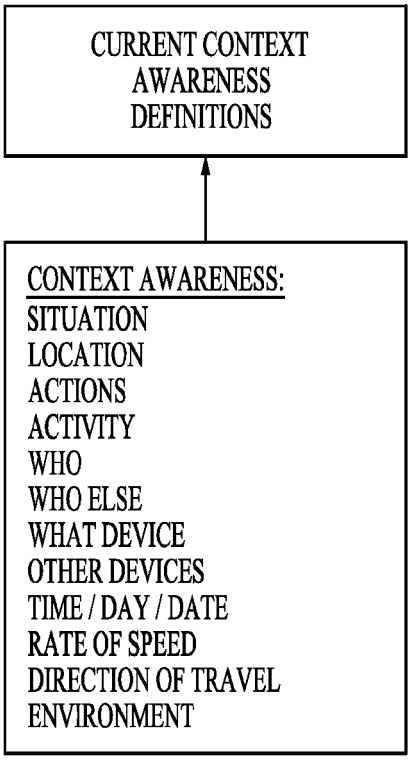

CURRENT CONTEXT
AWARENESS
DEFINITIONS
CONTEXT AWARENESS:
SITUATION
LOCATION
ACTIONS
ACTIVITY
WHO
WHO ELSE
WHAT DEVICE
OTHER DEVICES
TIME / DAY / DATE
RATE OF SPEED
DIRECTION OF TRAVEL
ENVIRONMENT

FIG. 4

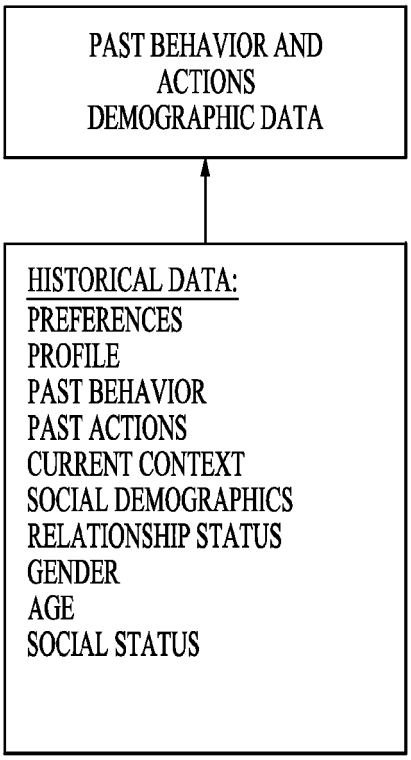

PAST BEHAVIOR AND
ACTIONS
DEMOGRAPHIC DATA
HISTORICAL DATA:
PREFERENCES
PROFILE
PAST BEHAVIOR
PAST ACTIONS
CURRENT CONTEXT
SOCIAL DEMOGRAPHICS
RELATIONSHIP STATUS
GENDER
AGE
SOCIAL STATUS

FIG. 5

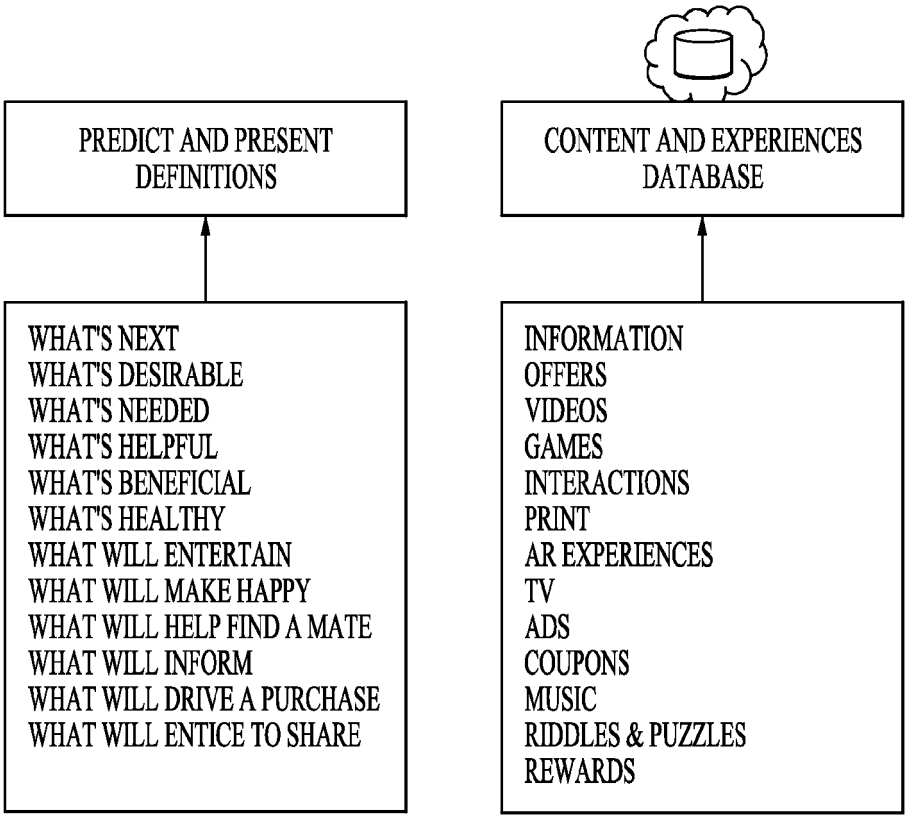

PREDICT AND PRESENT DEFINITIONS
WHAT'S NEXT
WHAT'S DESIRABLE
WHAT'S NEEDED
WHAT'S HELPFUL
WHAT'S BENEFICIAL
WHAT'S HEALTHY
WHAT WILL ENTERTAIN
WHAT WILL MAKE HAPPY
WHAT WILL HELP FIND A MATE
WHAT WILL INFORM
WHAT WILL DRIVE A PURCHASE
WHAT WILL ENTICE TO SHARE
CONTENT AND EXPERIENCES DATABASE
INFORMATION
OFFERS
VIDEOS
GAMES
INTERACTIONS
PRINT
AR EXPERIENCES
TV
ADS
COUPONS
MUSIC
RIDDLES & PUZZLES
REWARDS

FIG. 6 FIG. 7

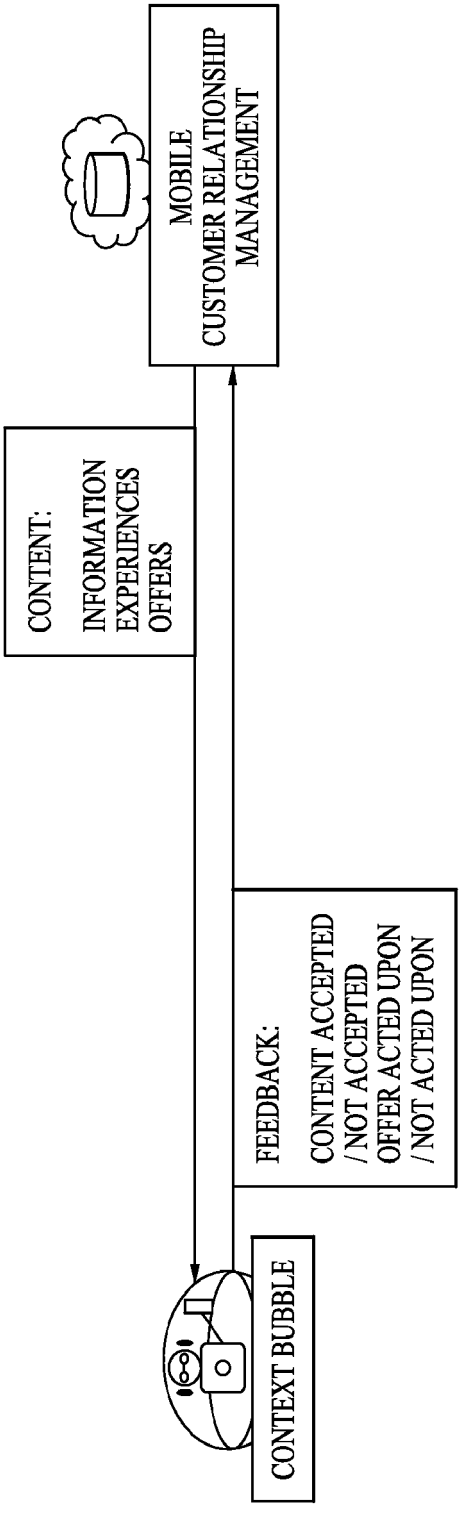

MOBILE
CUSTOMER RELATIONSHIP
MANAGEMENT
CONTENT:
INFORMATION
EXPERIENCES
OFFERS
FEEDBACK:
CONTENT ACCEPTED
/NOT ACCEPTED
OFFER ACTED UPON
/NOT ACTED UPON
CONTEXT BUBBLE

Fig. 8

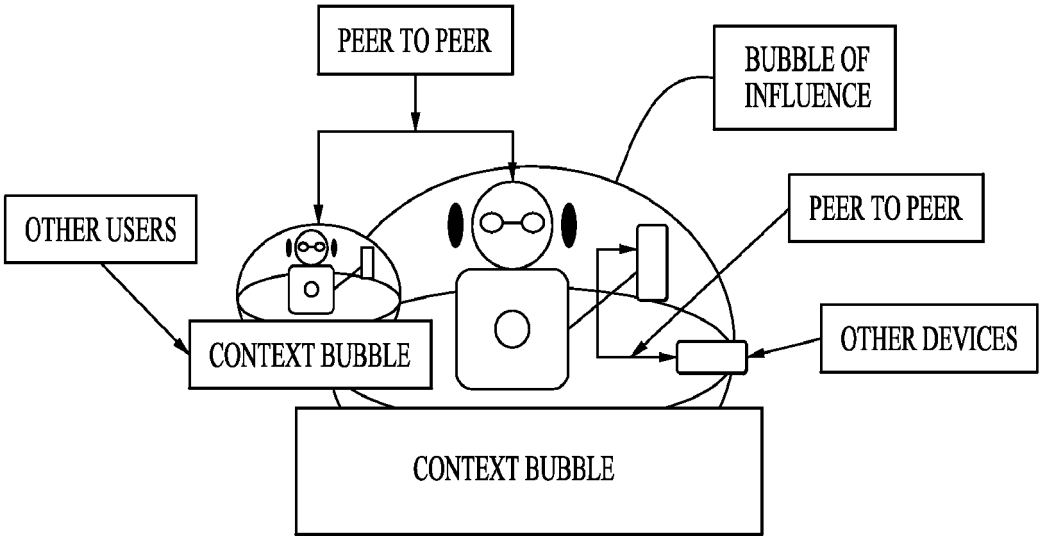

PEER TO PEER
BUBBLE OF INFLUENCE
OTHER USERS
PEER TO PEER
CONTEXT BUBBLE
OTHER DEVICES
CONTEXT BUBBLE

FIG. 9

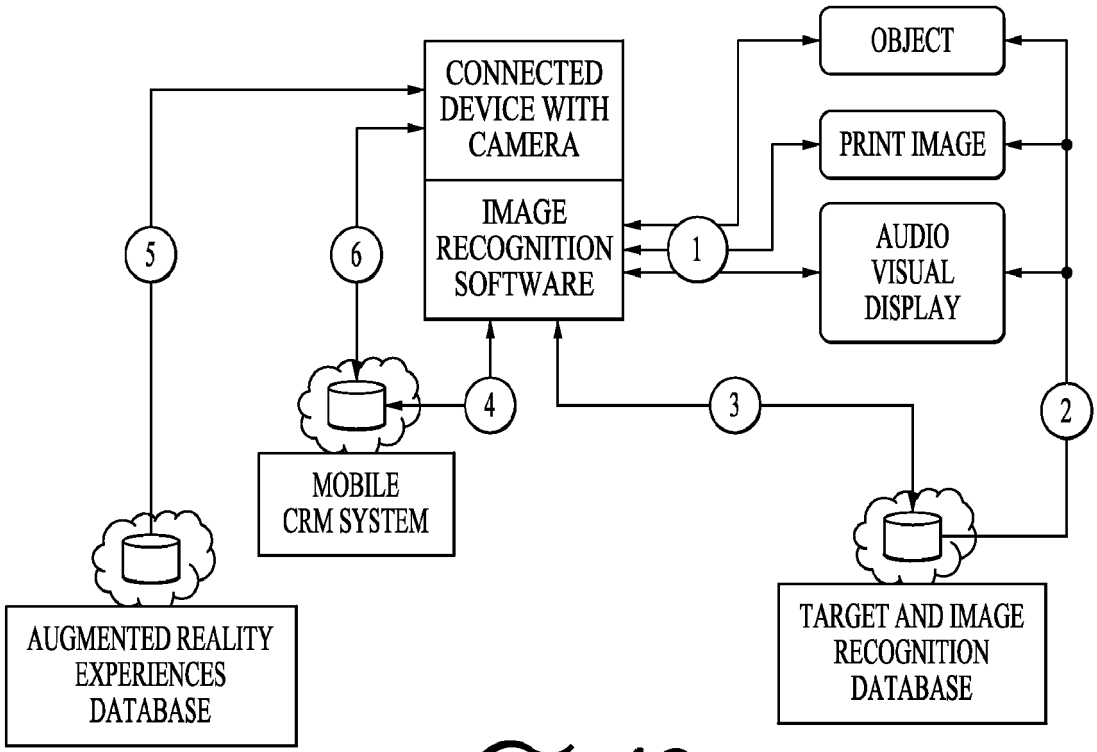

OBJECT
CONNECTED DEVICE WITH CAMERA
PRINT IMAGE
IMAGE RECOGNITION SOFTWARE
AUDIO VISUAL DISPLAY
1
2
3
4
5
6
MOBILE CRM SYSTEM
AUGMENTED REALITY EXPERIENCES DATABASE
TARGET AND IMAGE RECOGNITION DATABASE

FIG. 10

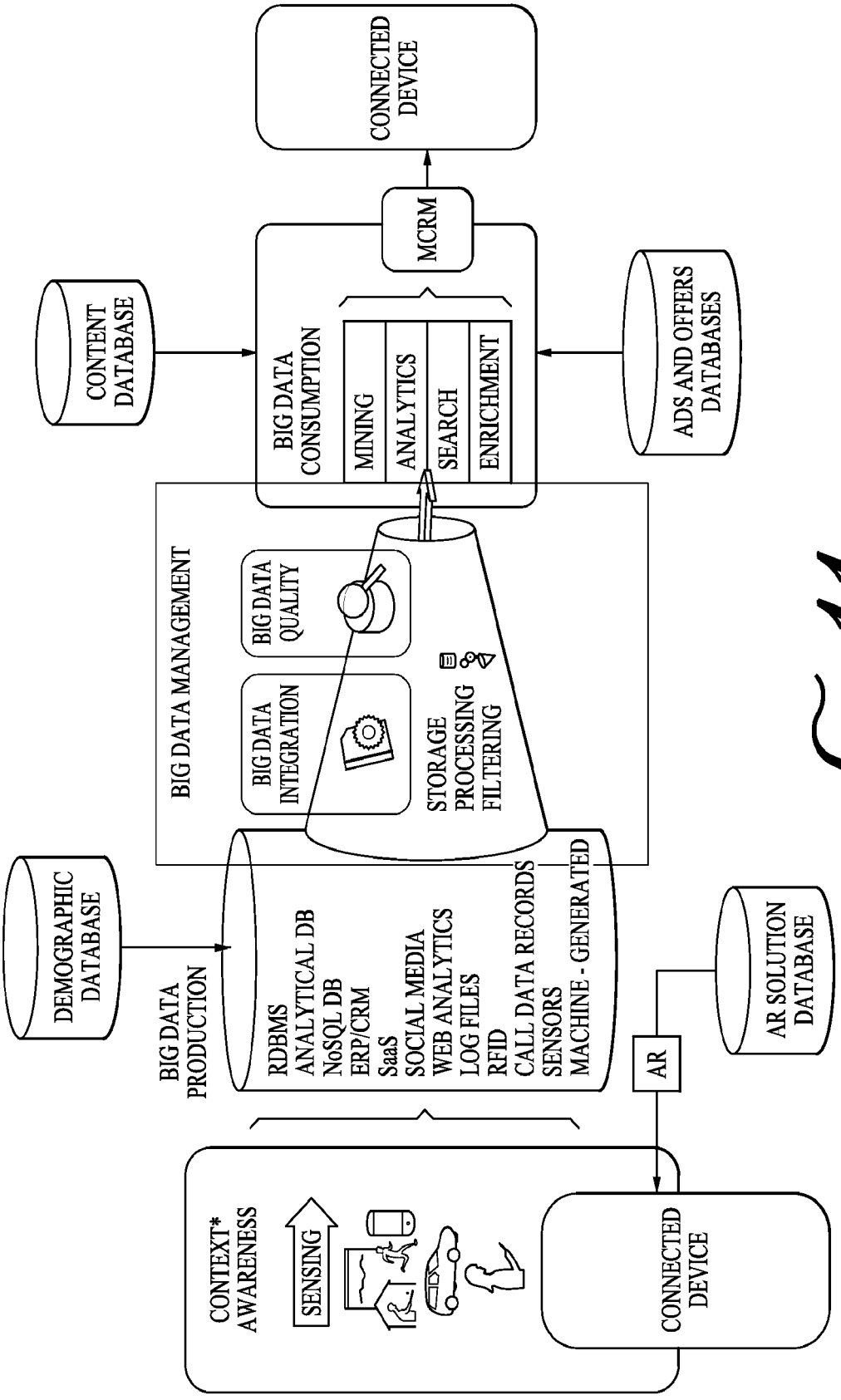

CONNECTED DEVICE
MCRM
CONTENT DATABASE
BIG DATA CONSUMPTION
MINING
ANALYTICS
SEARCH
ENRICHMENT
ADS AND OFFERS DATABASES
BIG DATA MANAGEMENT
BIG DATA QUALITY
BIG DATA INTEGRATION
STORAGE
PROCESSING
FILTERING
DEMOGRAPHIC DATABASE
BIG DATA PRODUCTION
RDBMS
ANALYTICAL DB
NoSQL DB
ERP/CRM
SaaS
SOCIAL MEDIA
WEB ANALYTICS
LOG FILES
RFID
CALL DATA RECORDS
SENSORS
MACHINE - GENERATED
AR
AR SOLUTION DATABASE
CONTEXT* AWARENESS
SENSING
CONNECTED DEVICE

Fig. 11

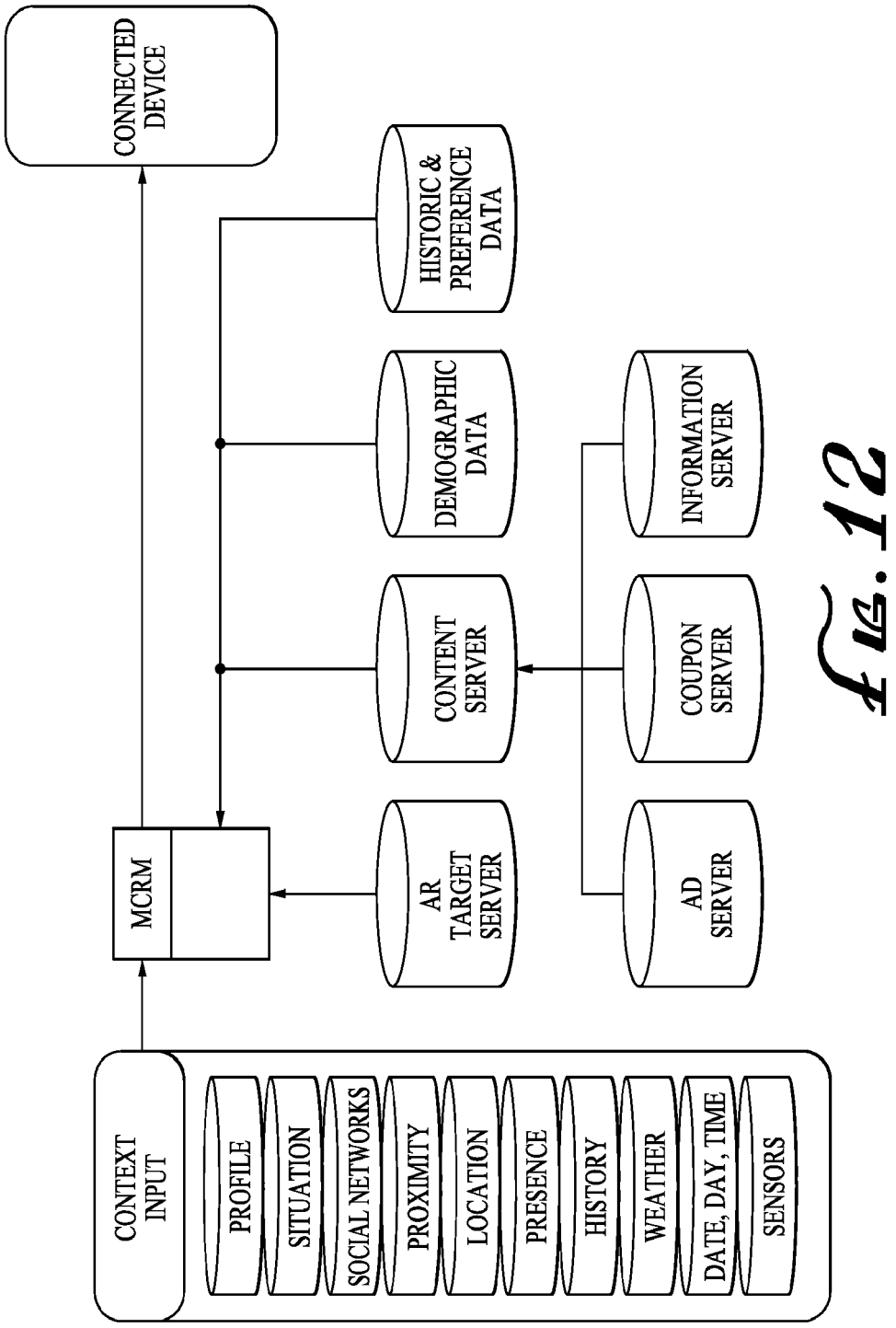

CONNECTED DEVICE
HISTORIC & PREFERENCE DATA
DEMOGRAPHIC DATA
INFORMATION SERVER
CONTENT SERVER
COUPON SERVER
MCRM
AR TARGET SERVER
AD SERVER
CONTEXT INPUT
PROFILE
SITUATION
SOCIAL NETWORKS
PROXIMITY
LOCATION
PRESENCE
HISTORY
WEATHER
DATE, DAY, TIME
SENSORS

FIG. 12

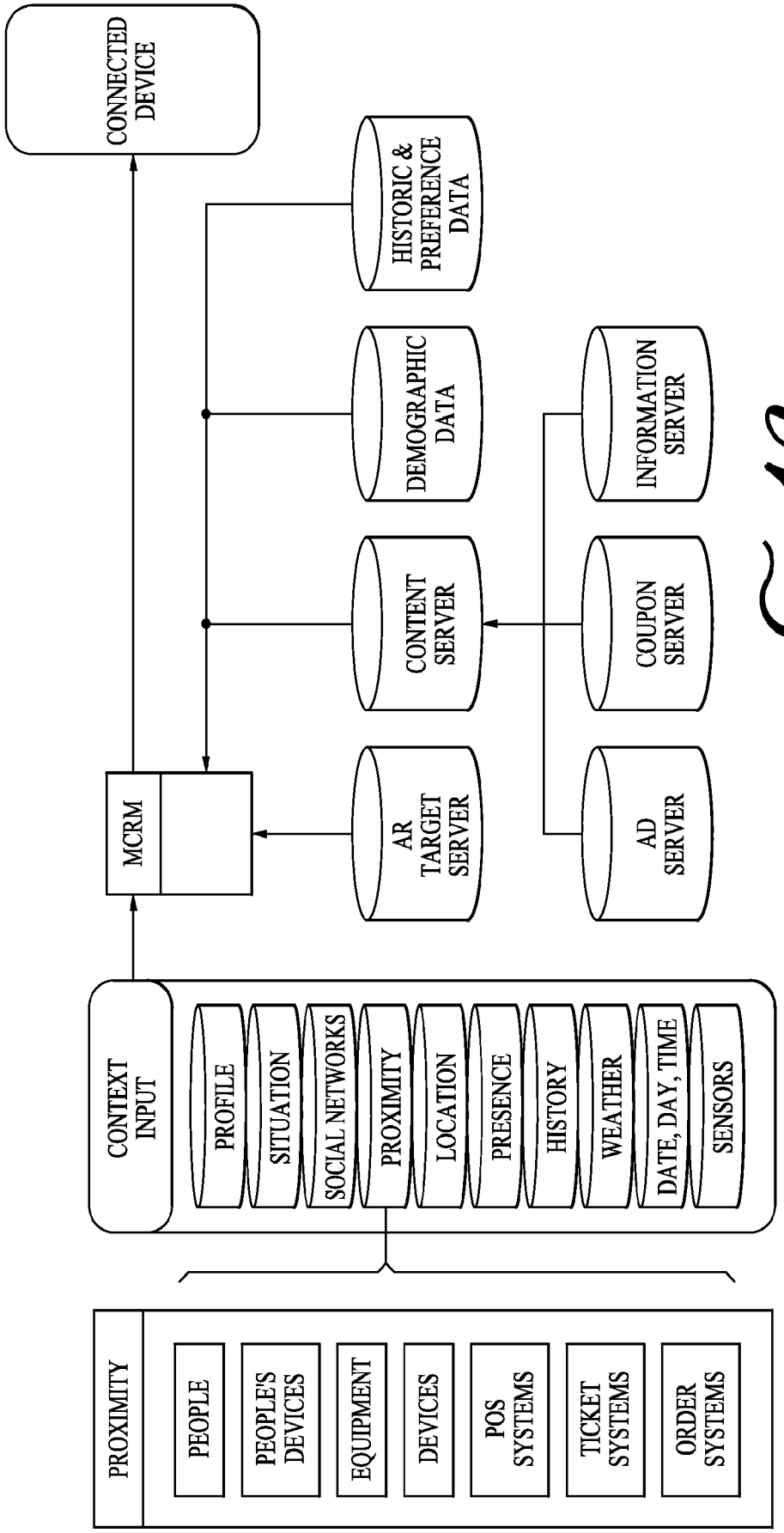

CONNECTED DEVICE
HISTORIC & PREFERENCE DATA
DEMOGRAPHIC DATA
INFORMATION SERVER
CONTENT SERVER
COUPON SERVER
MCRM
AR TARGET SERVER
AD SERVER
CONTEXT INPUT
PROFILE
SITUATION
SOCIAL NETWORKS
PROXIMITY
LOCATION
PRESENCE
HISTORY
WEATHER
DATE, DAY, TIME
SENSORS
PROXIMITY
PEOPLE
PEOPLE'S DEVICES
EQUIPMENT
DEVICES
POS SYSTEMS
TICKET SYSTEMS
ORDER SYSTEMS

Fig. 13

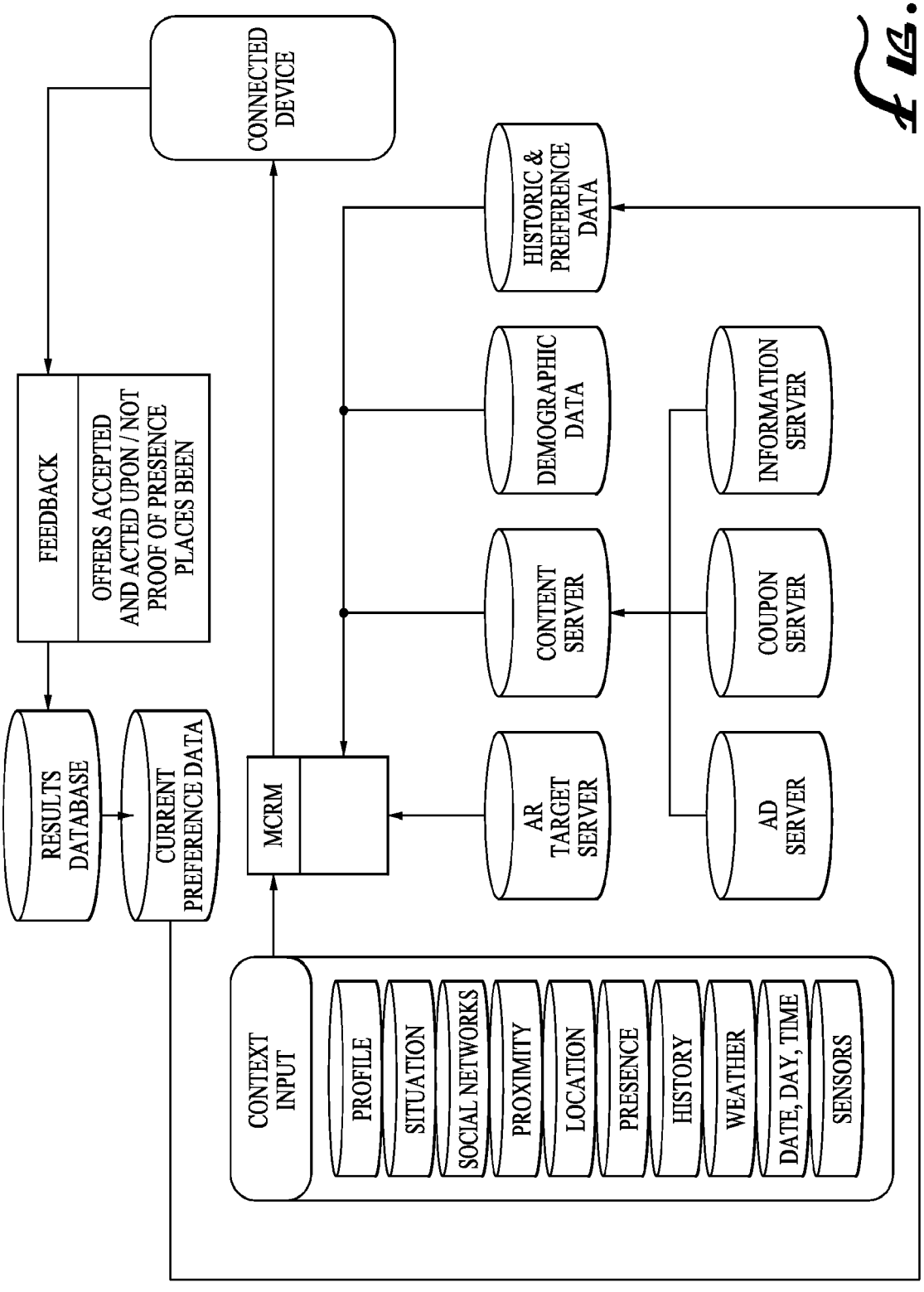

CONNECTED DEVICE
HISTORIC & PREFERENCE DATA
DEMOGRAPHIC DATA
INFORMATION SERVER
CONTENT SERVER
COUPON SERVER
AR TARGET SERVER
AD SERVER
MCRM
FEEDBACK
OFFERS ACCEPTED AND ACTED UPON / NOT PROOF OF PRESENCE PLACES BEEN
RESULTS DATABASE
CURRENT PREFERENCE DATA
CONTEXT INPUT
PROFILE
SITUATION
SOCIAL NETWORKS
PROXIMITY
LOCATION
PRESENCE
HISTORY
WEATHER
DATE, DAY, TIME
SENSORS

Fig. 14

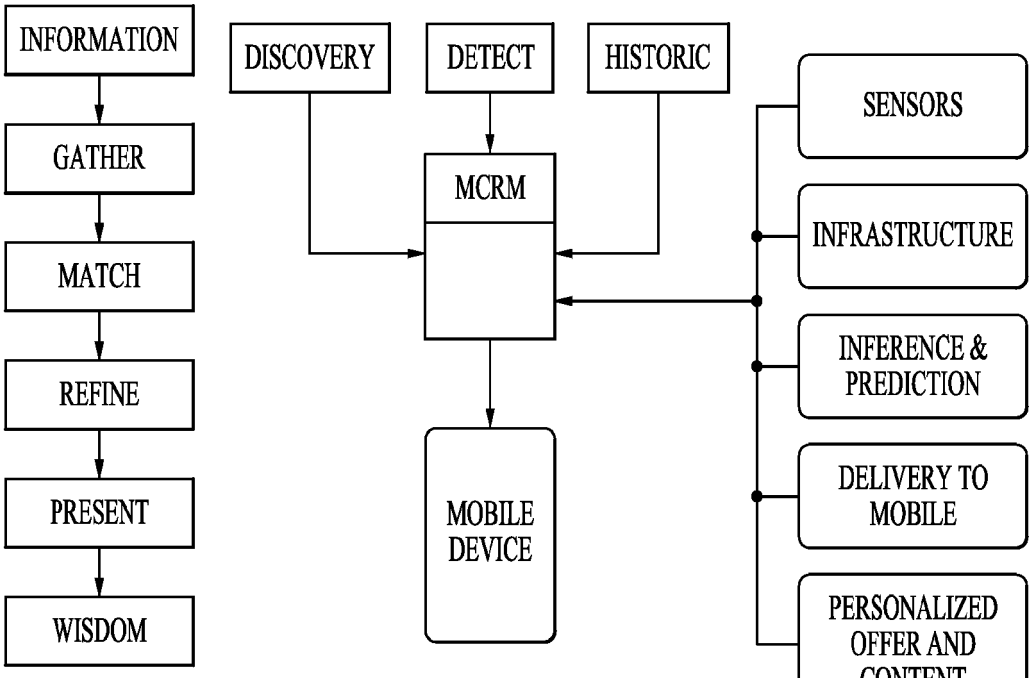

INFORMATION
GATHER
MATCH
REFINE
PRESENT
WISDOM
DISCOVERY
DETECT
HISTORIC
MCRM
MOBILE DEVICE
SENSORS
INFRASTRUCTURE
INFERENCE & PREDICTION
DELIVERY TO MOBILE
PERSONALIZED OFFER AND CONTENT

FIG. 15

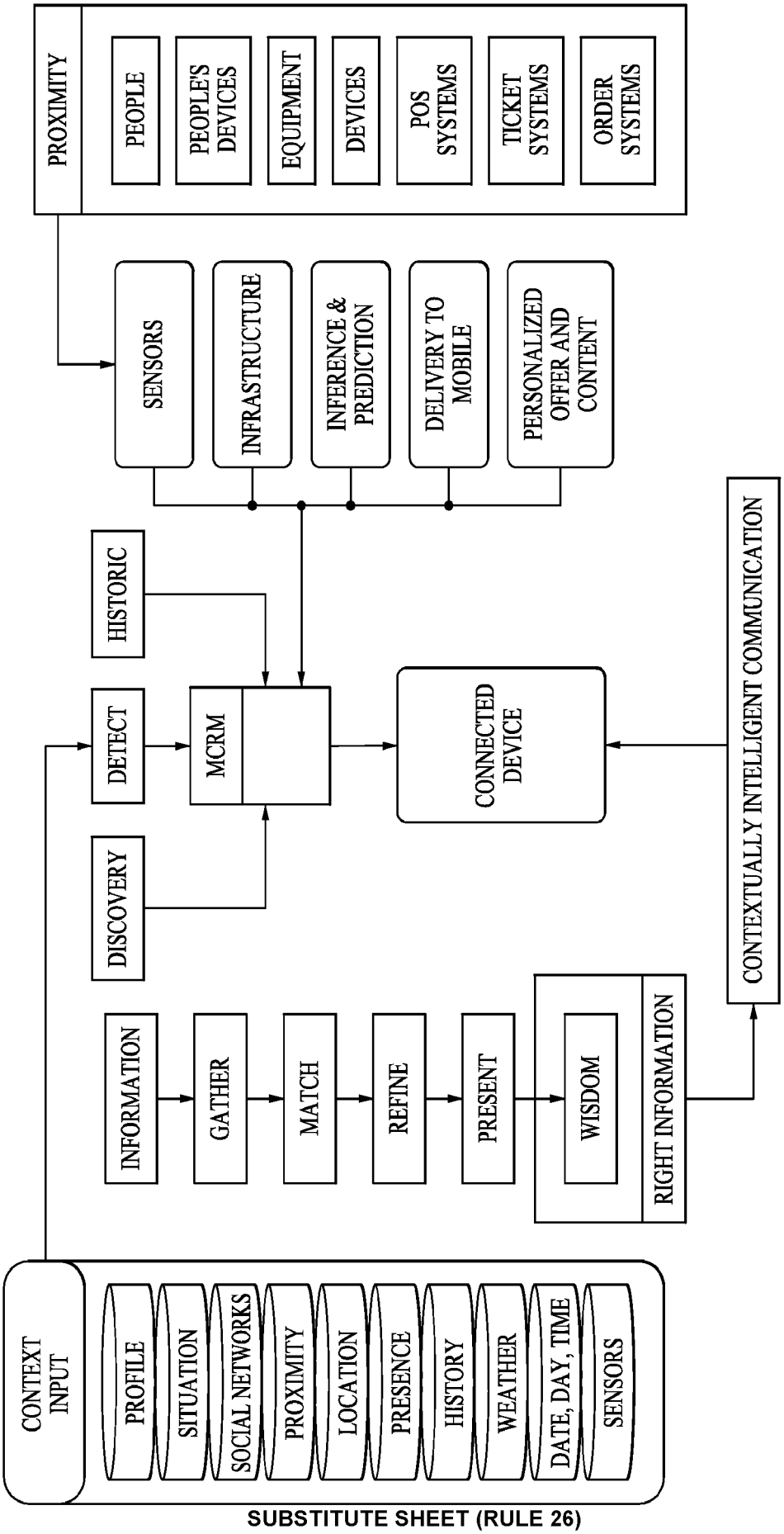

CONTEXT INPUT
PROFILE
SITUATION
SOCIAL NETWORKS
PROXIMITY
LOCATION
PRESENCE
HISTORY
WEATHER
DATE, DAY, TIME
SENSORS
INFORMATION
GATHER
MATCH
REFINE
PRESENT
WISDOM
RIGHT INFORMATION
CONTEXTUALLY INTELLIGENT COMMUNICATION
DETECT
DISCOVERY
MCRM
HISTORIC
CONNECTED DEVICE
PROXIMITY
PEOPLE
PEOPLE'S DEVICES
EQUIPMENT
DEVICES
POS SYSTEMS
TICKET SYSTEMS
ORDER SYSTEMS
SENSORS
INFRASTRUCTURE
INFERENCE & PREDICTION
DELIVERY TO MOBILE
PERSONALIZED OFFER AND CONTENT

Fig. 16

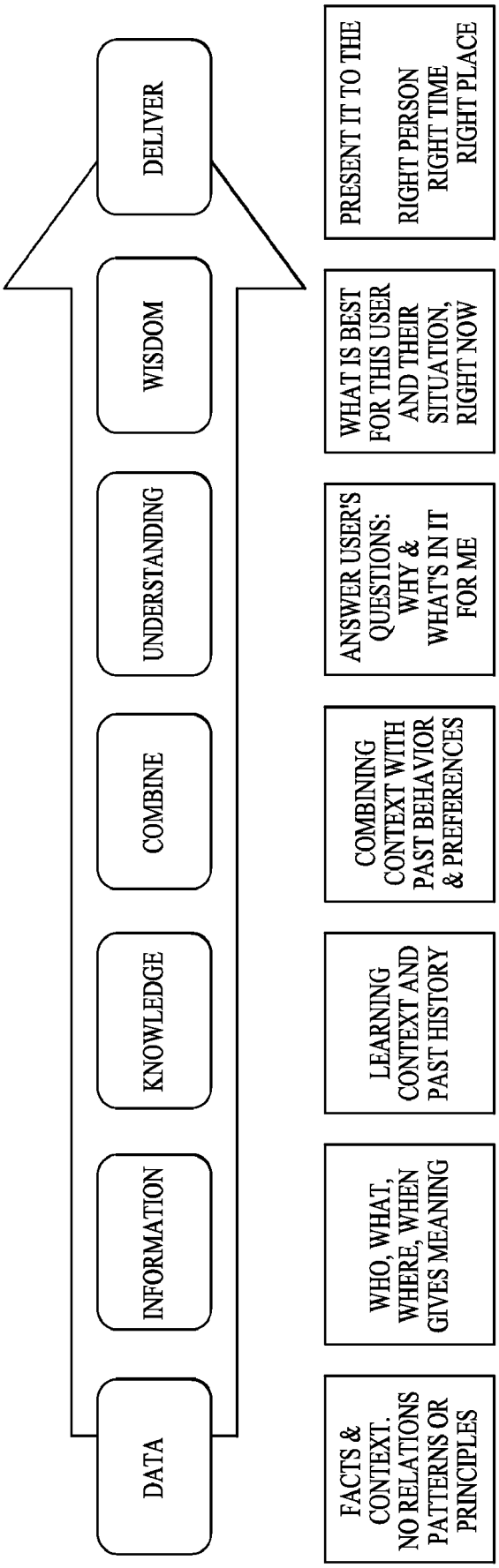

DATA
INFORMATION
KNOWLEDGE
COMBINE
UNDERSTANDING
WISDOM
DELIVER
FACTS & CONTEXT. NO RELATIONS PATTERNS OR PRINCIPLES
WHO, WHAT, WHERE, WHEN GIVES MEANING
LEARNING CONTEXT AND PAST HISTORY
COMBINING CONTEXT WITH PAST BEHAVIOR & PREFERENCES
ANSWER USER'S QUESTIONS: WHY & WHAT'S IN IT FOR ME
WHAT IS BEST FOR THIS USER AND THEIR SITUATION, RIGHT NOW
PRESENT IT TO THE RIGHT PERSON RIGHT TIME RIGHT PLACE

Fig. 17

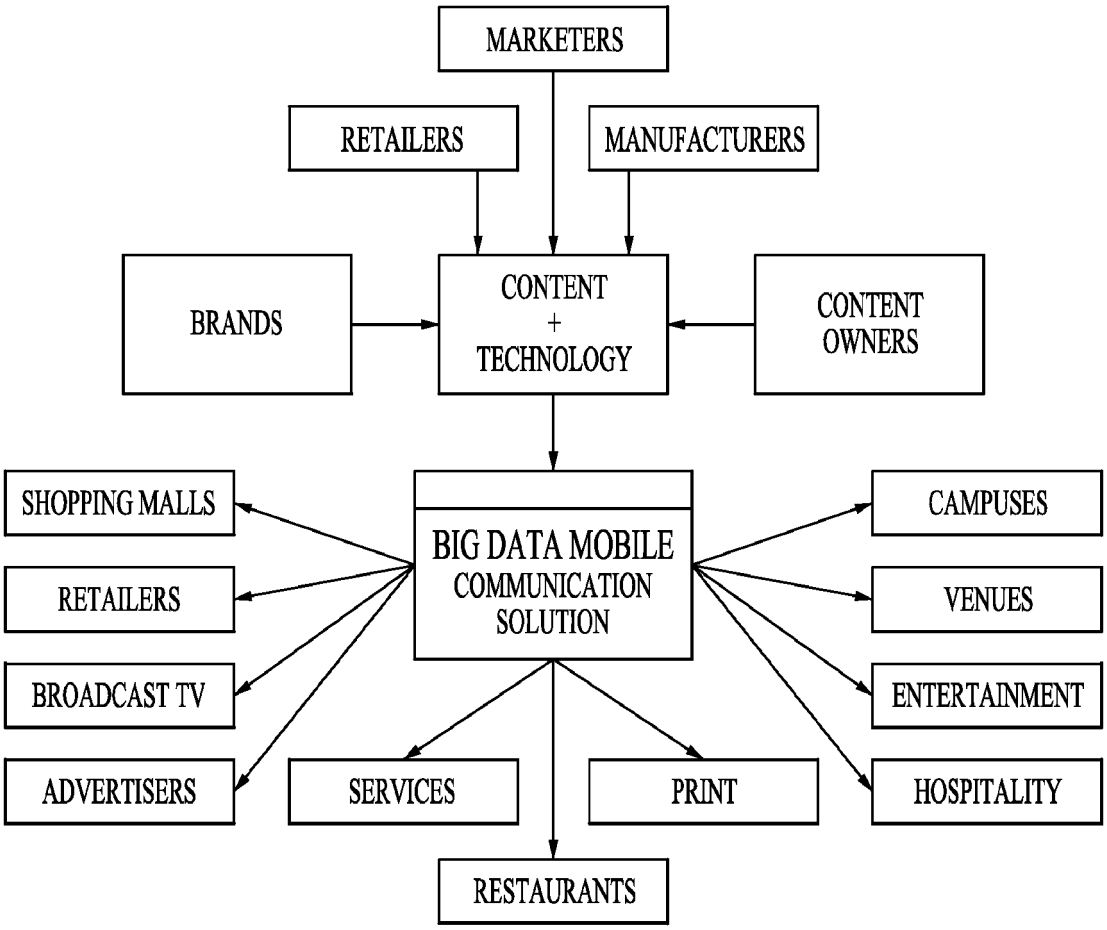

MARKETERS
RETAILERS
MANUFACTURERS
BRANDS
CONTENT
+
TECHNOLOGY
CONTENT
OWNERS
SHOPPING MALLS
RETAILERS
BROADCAST TV
ADVERTISERS
BIG DATA MOBILE
COMMUNICATION
SOLUTION
SERVICES
PRINT
RESTAURANTS
CAMPUSES
VENUES
ENTERTAINMENT
HOSPITALITY

FIG. 18

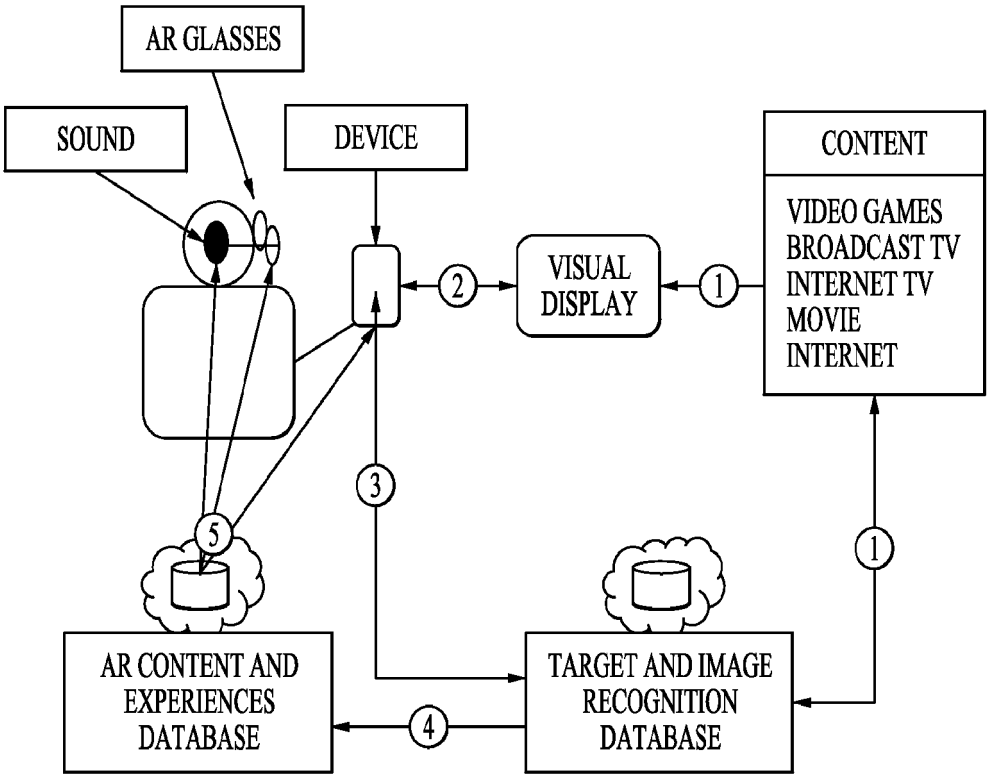

AR GLASSES
SOUND
DEVICE
CONTENT
VIDEO GAMES
BROADCAST TV
INTERNET TV
MOVIE
INTERNET
VISUAL DISPLAY
2
1
3
5
1
AR CONTENT AND EXPERIENCES DATABASE
4
TARGET AND IMAGE RECOGNITION DATABASE

FIG. 19

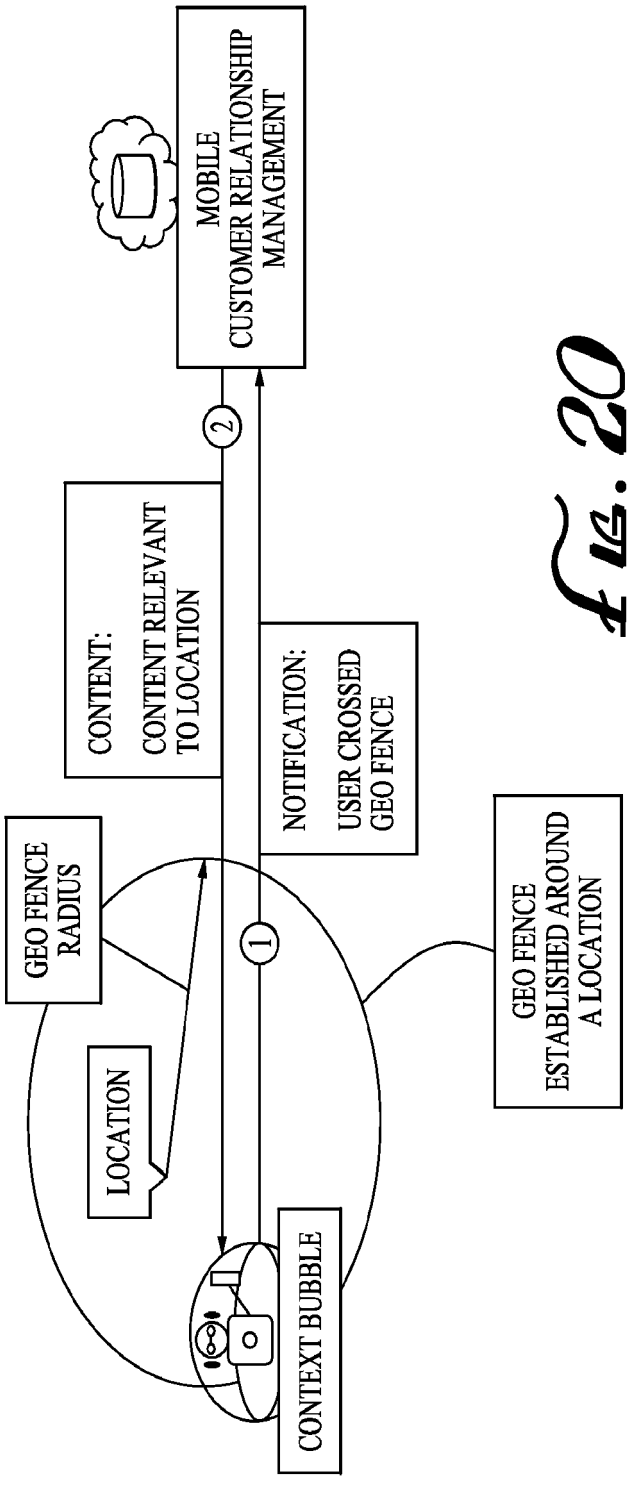

MOBILE
CUSTOMER RELATIONSHIP
MANAGEMENT
2
CONTENT:
CONTENT RELEVANT
TO LOCATION
NOTIFICATION:
USER CROSSED
GEO FENCE
GEO FENCE
RADIUS
1
GEO FENCE
ESTABLISHED AROUND
A LOCATION
LOCATION
CONTEXT BUBBLE

Fig. 20

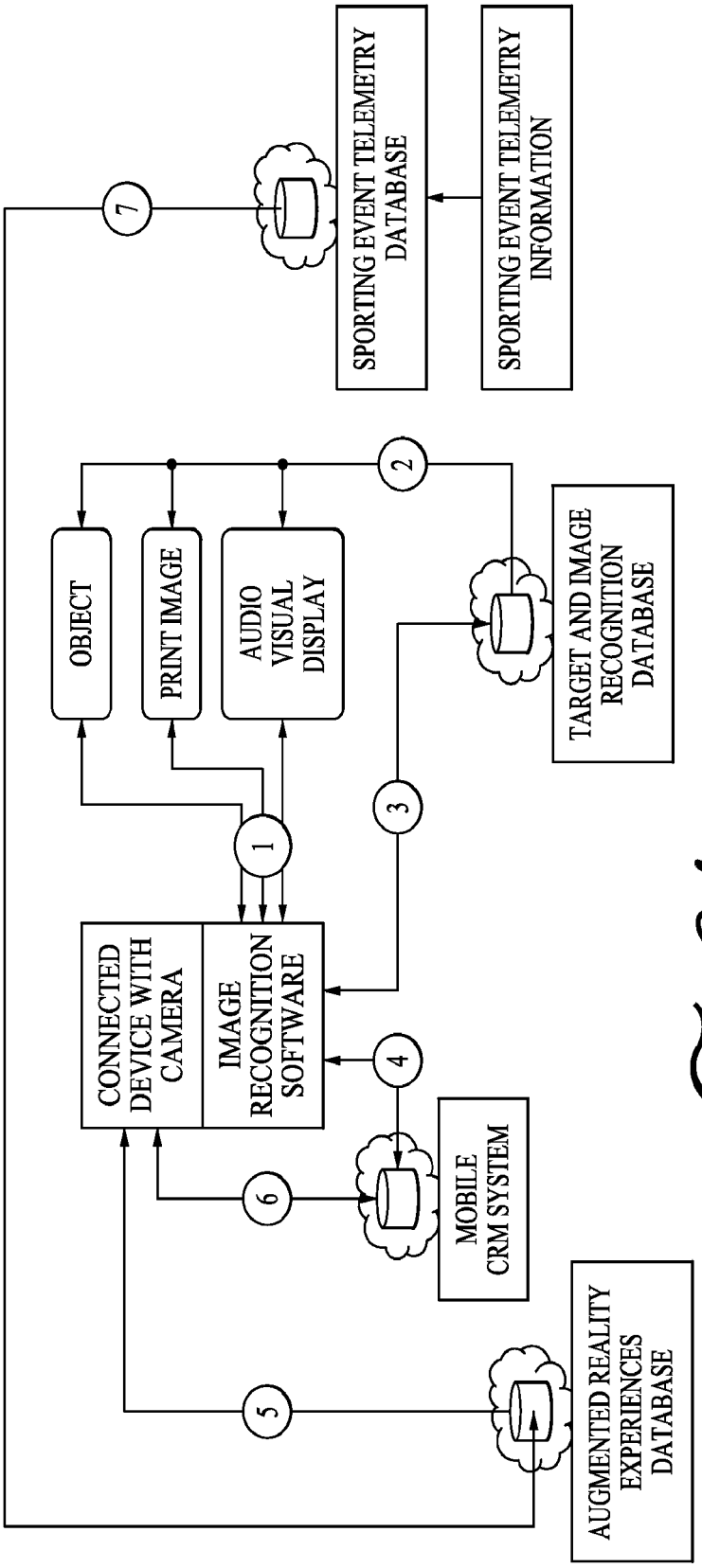

SPORTING EVENT TELEMETRY DATABASE
SPORTING EVENT TELEMETRY INFORMATION
7
2
OBJECT
PRINT IMAGE
AUDIO VISUAL DISPLAY
TARGET AND IMAGE RECOGNITION DATABASE
3
1
CONNECTED DEVICE WITH CAMERA
IMAGE RECOGNITION SOFTWARE
4
MOBILE CRM SYSTEM
6
5
AUGMENTED REALITY EXPERIENCES DATABASE

Fig. 21

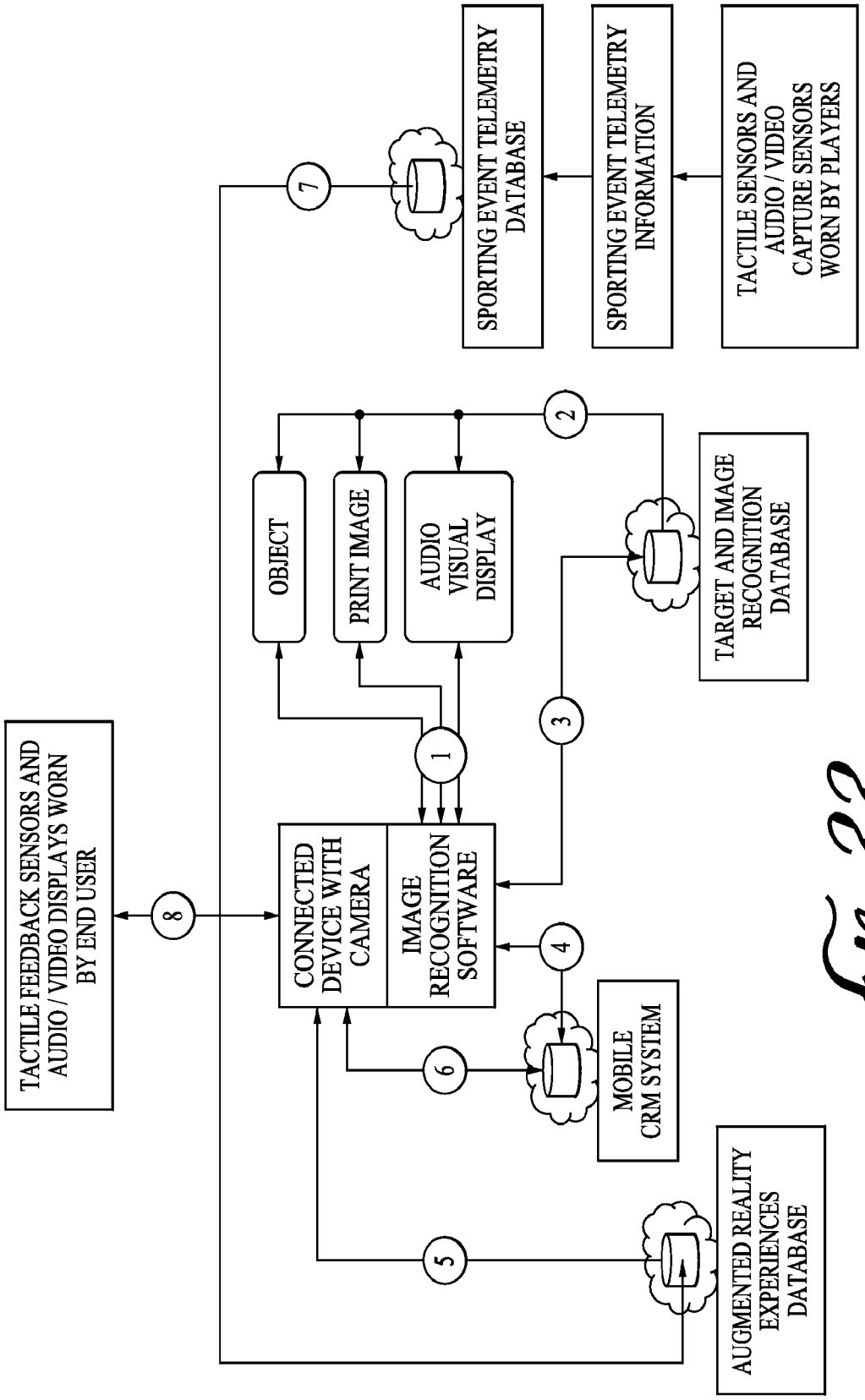

TACTILE FEEDBACK SENSORS AND AUDIO / VIDEO DISPLAYS WORN BY END USER
CONNECTED DEVICE WITH CAMERA
IMAGE RECOGNITION SOFTWARE
OBJECT
PRINT IMAGE
AUDIO VISUAL DISPLAY
TARGET AND IMAGE RECOGNITION DATABASE
MOBILE CRM SYSTEM
AUGMENTED REALITY EXPERIENCES DATABASE
SPORTING EVENT TELEMETRY DATABASE
SPORTING EVENT TELEMETRY INFORMATION
TACTILE SENSORS AND AUDIO / VIDEO CAPTURE SENSORS WORN BY PLAYERS
1
2
3
4
5
6
7
8

FIG. 22

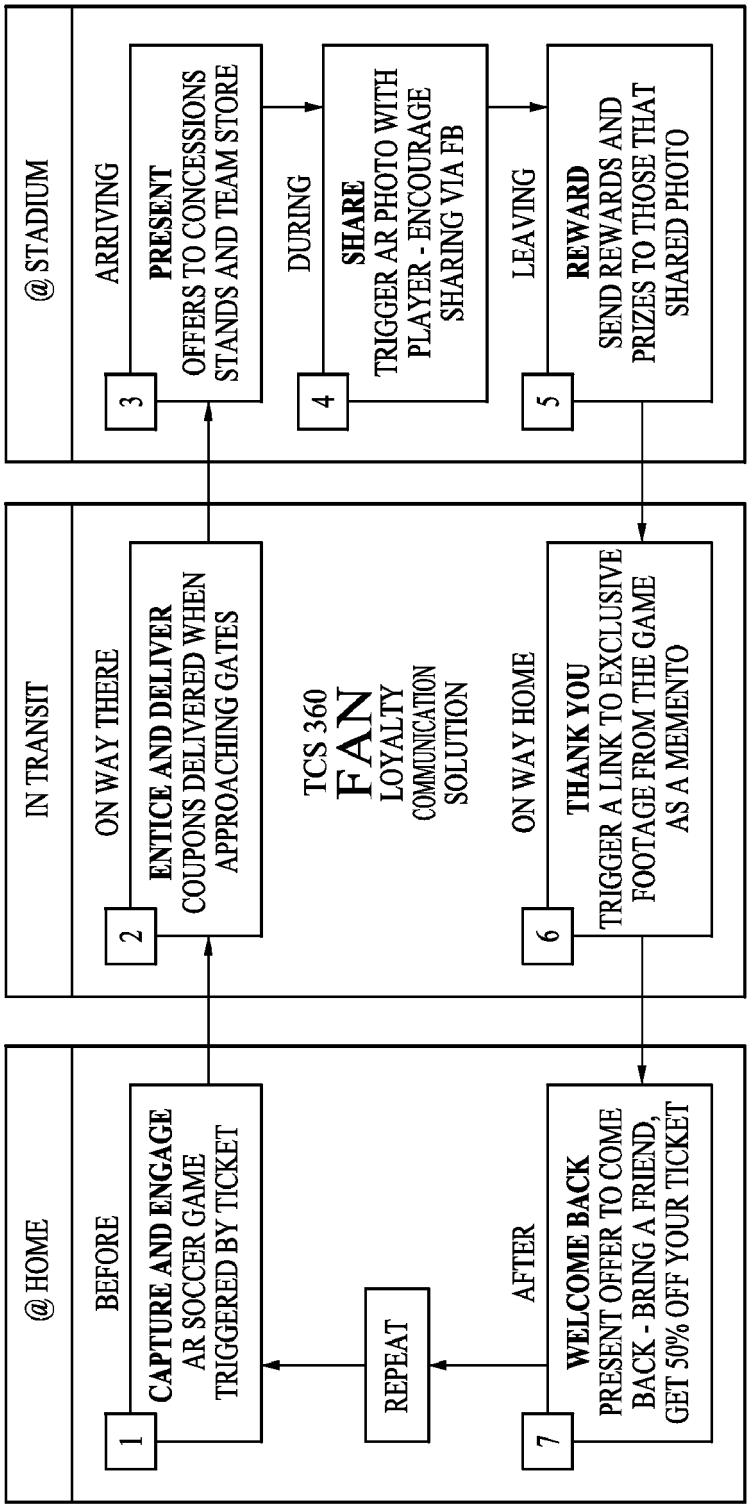

@ HOME
BEFORE
1
CAPTURE AND ENGAGE
AR SOCCER GAME
TRIGGERED BY TICKET
REPEAT
AFTER
7
WELCOME BACK
PRESENT OFFER TO COME
BACK - BRING A FRIEND,
GET 50% OFF YOUR TICKET
IN TRANSIT
ON WAY THERE
2
ENTICE AND DELIVER
COUPONS DELIVERED WHEN
APPROACHING GATES
TCS 360
FAN
LOYALTY
COMMUNICATION
SOLUTION
ON WAY HOME
6
THANK YOU
TRIGGER A LINK TO EXCLUSIVE
FOOTAGE FROM THE GAME
AS A MEMENTO
@ STADIUM
ARRIVING
3
PRESENT
OFFERS TO CONCESSIONS
STANDS AND TEAM STORE
DURING
4
SHARE
TRIGGER AR PHOTO WITH
PLAYER - ENCOURAGE
SHARING VIA FB
LEAVING
5
REWARD
SEND REWARDS AND
PRIZES TO THOSE THAT
SHARED PHOTO

Fig. 23

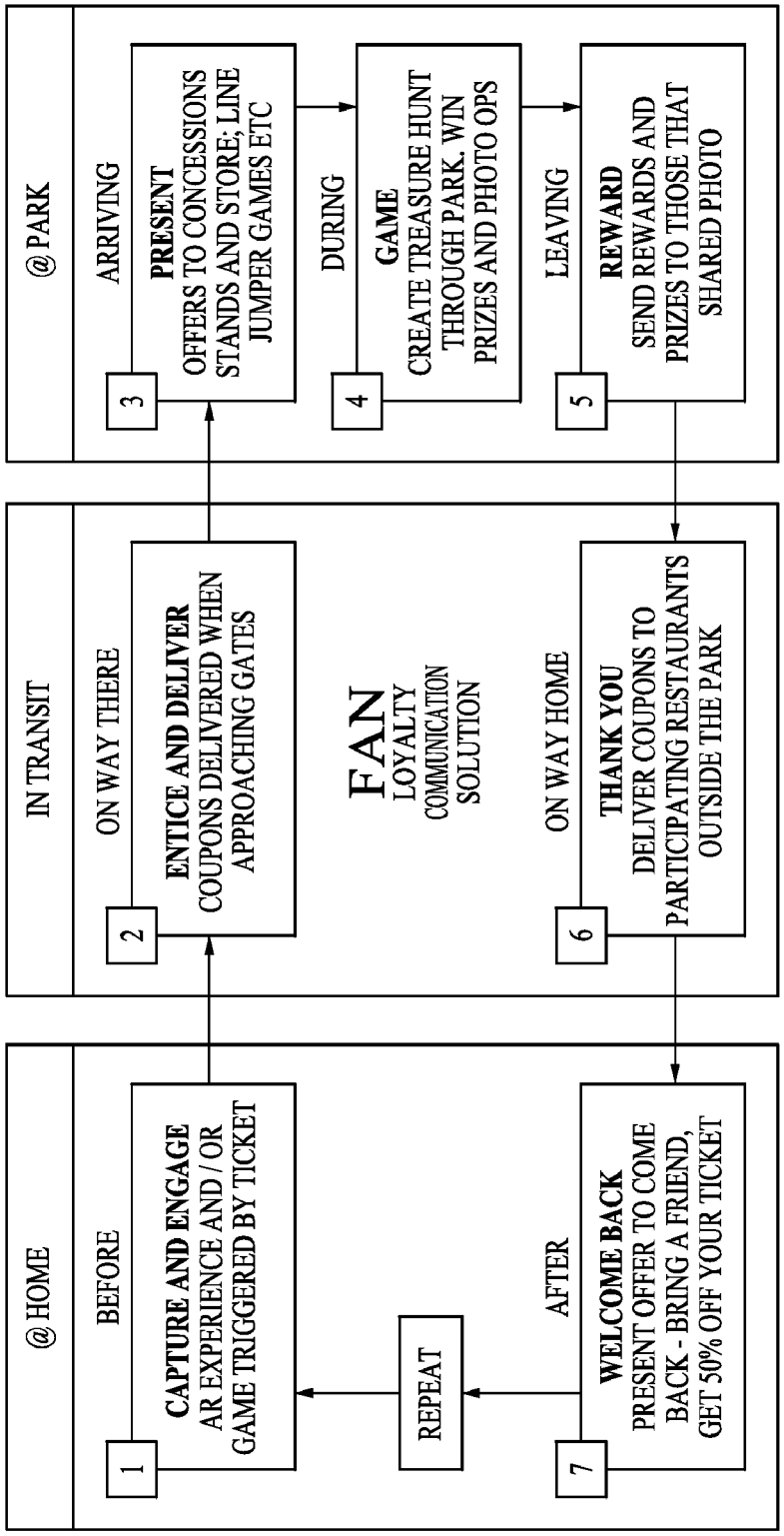

@ HOME
BEFORE
1
CAPTURE AND ENGAGE
AR EXPERIENCE AND / OR
GAME TRIGGERED BY TICKET
REPEAT
AFTER
7
WELCOME BACK
PRESENT OFFER TO COME
BACK - BRING A FRIEND,
GET 50% OFF YOUR TICKET
IN TRANSIT
ON WAY THERE
2
ENTICE AND DELIVER
COUPONS DELIVERED WHEN
APPROACHING GATES
FAN
LOYALTY
COMMUNICATION
SOLUTION
ON WAY HOME
6
THANK YOU
DELIVER COUPONS TO
PARTICIPATING RESTAURANTS
OUTSIDE THE PARK
@ PARK
ARRIVING
3
PRESENT
OFFERS TO CONCESSIONS
STANDS AND STORE; LINE
JUMPER GAMES ETC
DURING
4
GAME
CREATE TREASURE HUNT
THROUGH PARK. WIN
PRIZES AND PHOTO OPS
LEAVING
5
REWARD
SEND REWARDS AND
PRIZES TO THOSE THAT
SHARED PHOTO

FIG. 24

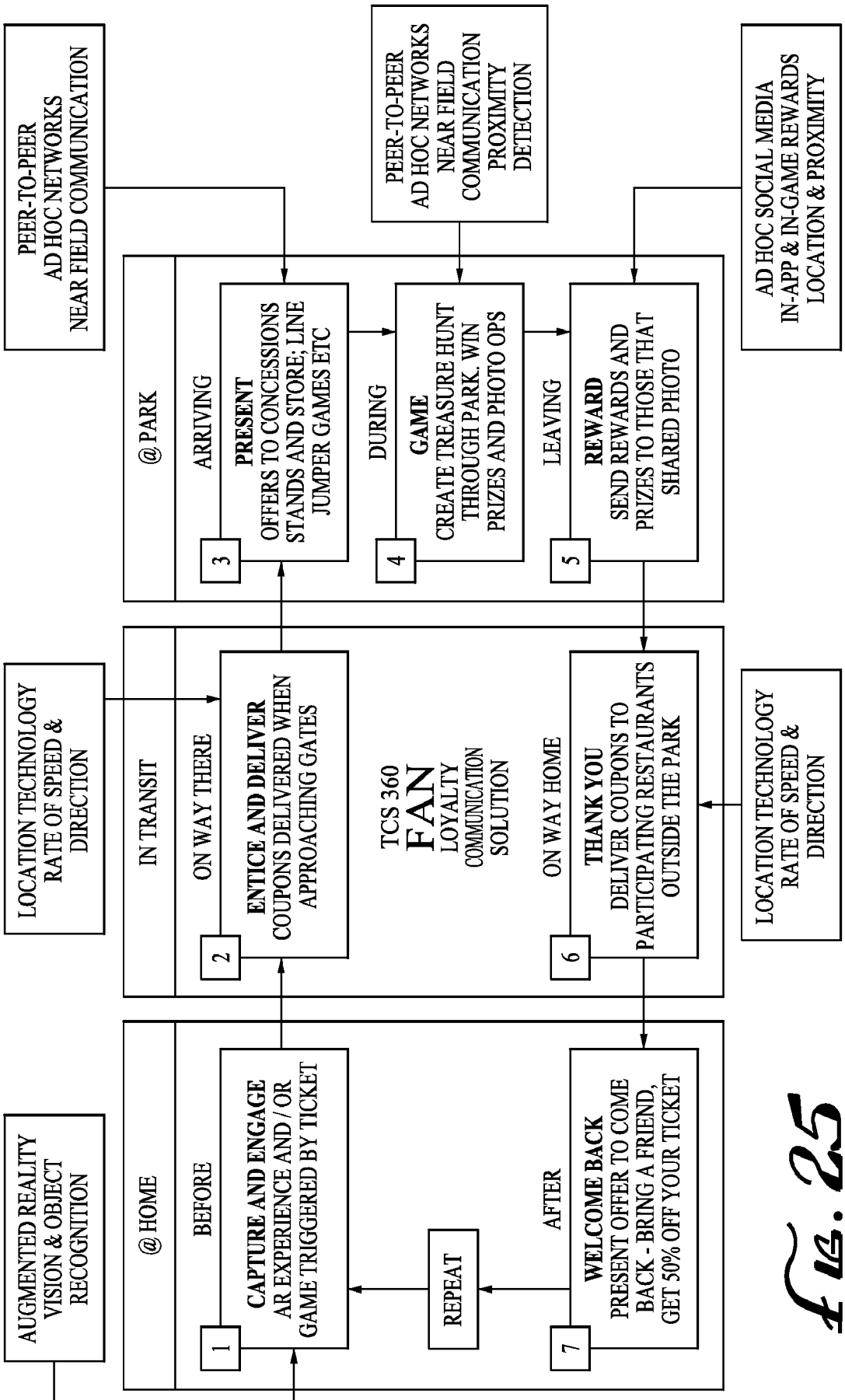

PEER-TO-PEER
AD HOC NETWORKS
NEAR FIELD COMMUNICATION
PEER-TO-PEER
AD HOC NETWORKS
NEAR FIELD
COMMUNICATION
PROXIMITY
DETECTION
AD HOC SOCIAL MEDIA
IN-APP & IN-GAME REWARDS
LOCATION & PROXIMITY
@ PARK
ARRIVING
3
PRESENT
OFFERS TO CONCESSIONS
STANDS AND STORE; LINE
JUMPER GAMES ETC
DURING
4
GAME
CREATE TREASURE HUNT
THROUGH PARK. WIN
PRIZES AND PHOTO OPS
LEAVING
5
REWARD
SEND REWARDS AND
PRIZES TO THOSE THAT
SHARED PHOTO
LOCATION TECHNOLOGY
RATE OF SPEED &
DIRECTION
IN TRANSIT
ON WAY THERE
2
ENTICE AND DELIVER
COUPONS DELIVERED WHEN
APPROACHING GATES
TCS 360
FAN
LOYALTY
COMMUNICATION
SOLUTION
ON WAY HOME
6
THANK YOU
DELIVER COUPONS TO
PARTICIPATING RESTAURANTS
OUTSIDE THE PARK
LOCATION TECHNOLOGY
RATE OF SPEED &
DIRECTION
AUGMENTED REALITY
VISION & OBJECT
RECOGNITION
@ HOME
BEFORE
1
CAPTURE AND ENGAGE
AR EXPERIENCE AND / OR
GAME TRIGGERED BY TICKET
REPEAT
AFTER
7
WELCOME BACK
PRESENT OFFER TO COME
BACK - BRING A FRIEND,
GET 50% OFF YOUR TICKET

Fig. 25

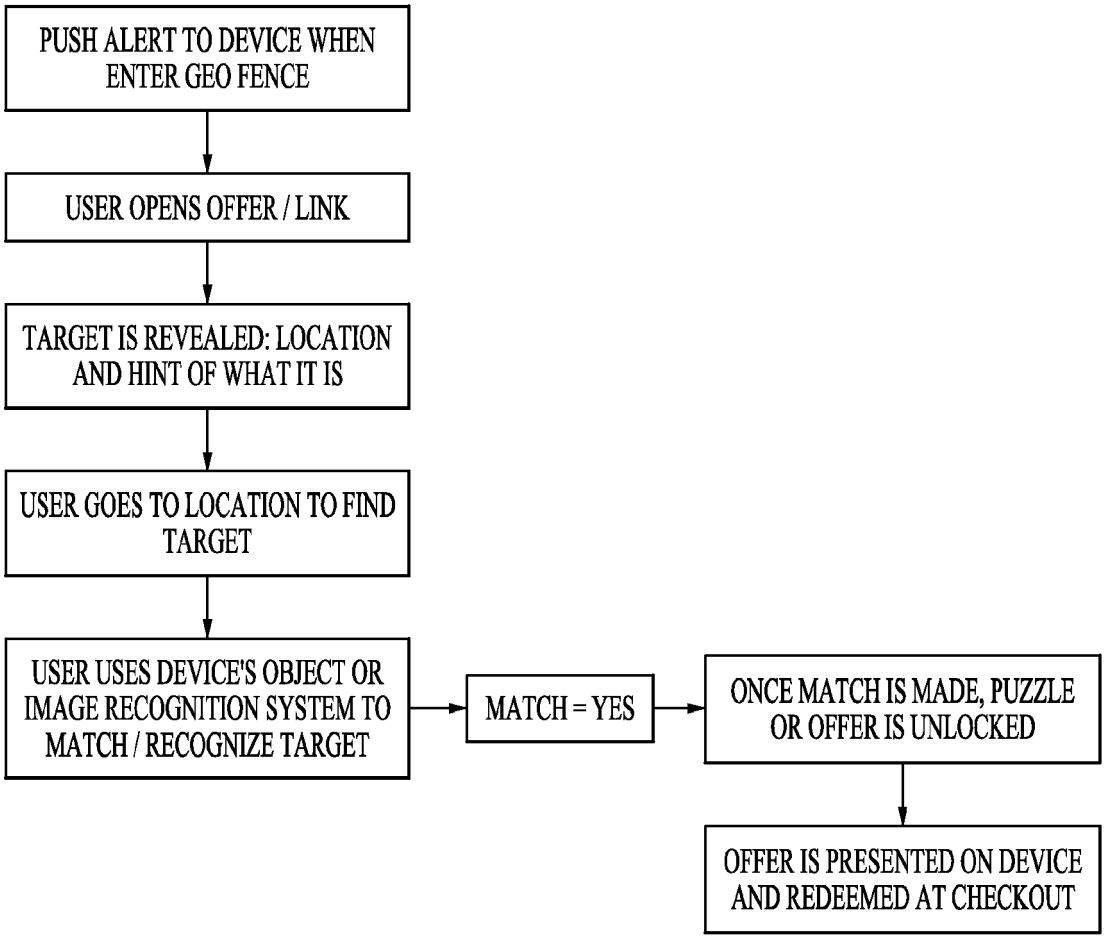

PUSH ALERT TO DEVICE WHEN ENTER GEO FENCE
USER OPENS OFFER / LINK
TARGET IS REVEALED: LOCATION AND HINT OF WHAT IT IS
USER GOES TO LOCATION TO FIND TARGET
USER USES DEVICE'S OBJECT OR IMAGE RECOGNITION SYSTEM TO MATCH / RECOGNIZE TARGET
MATCH = YES
ONCE MATCH IS MADE, PUZZLE OR OFFER IS UNLOCKED
OFFER IS PRESENTED ON DEVICE AND REDEEMED AT CHECKOUT

FIG. 26

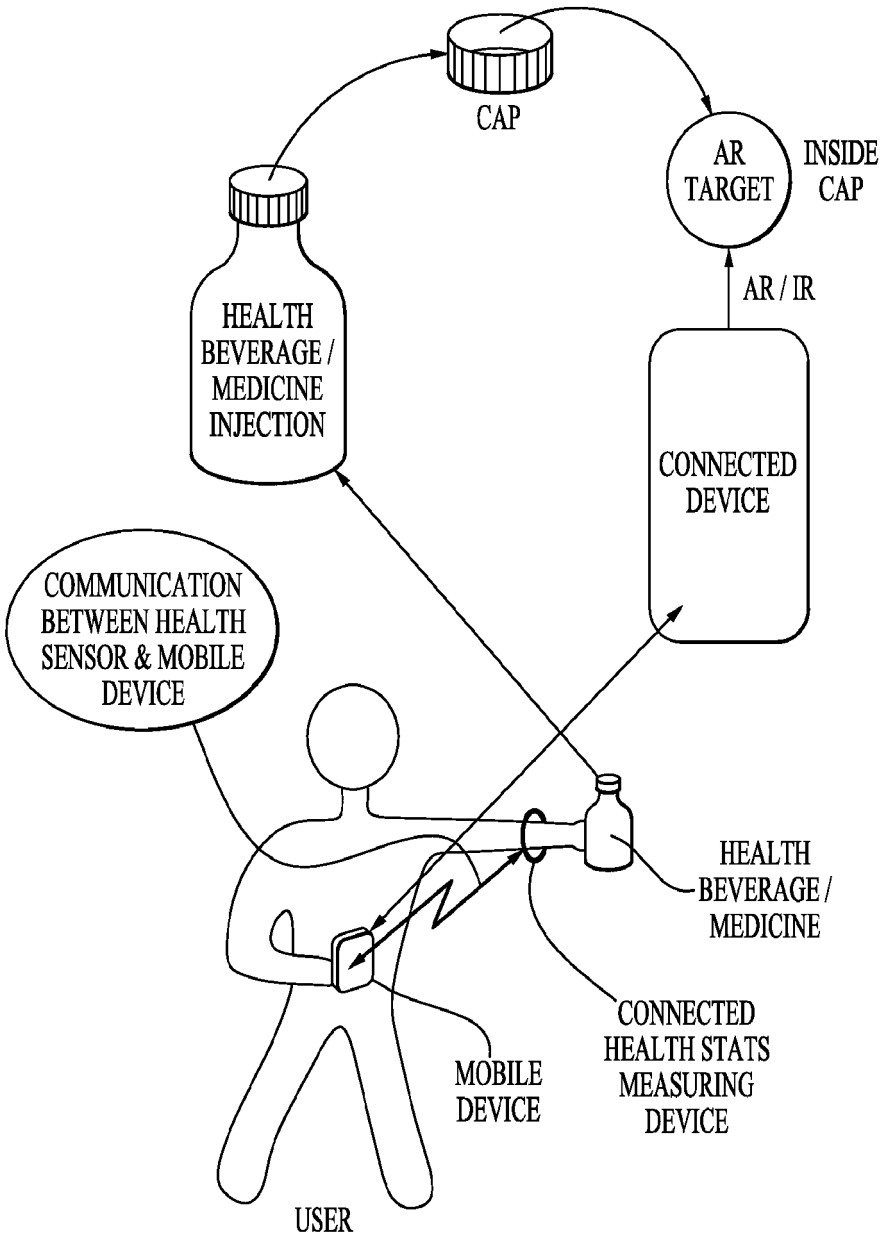

CAP
AR TARGET
INSIDE CAP
AR / IR
HEALTH BEVERAGE / MEDICINE INJECTION
CONNECTED DEVICE
COMMUNICATION BETWEEN HEALTH SENSOR & MOBILE DEVICE
HEALTH BEVERAGE / MEDICINE
CONNECTED HEALTH STATS MEASURING DEVICE
MOBILE DEVICE
USER

FIG. 27

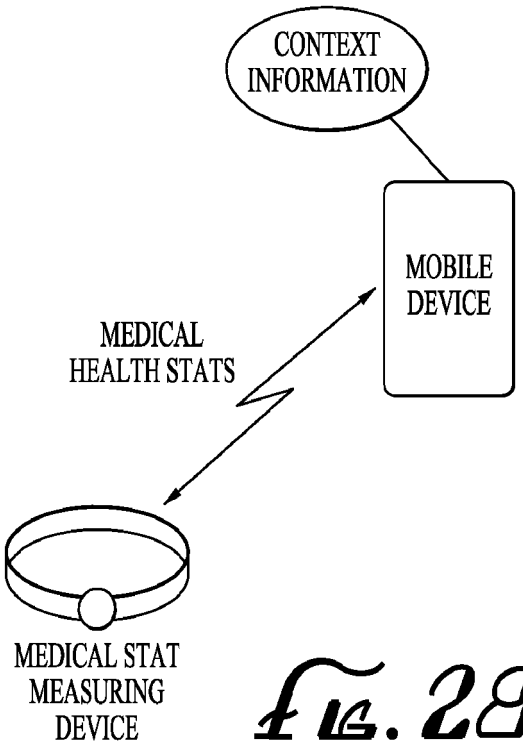

CONTEXT INFORMATION
MOBILE DEVICE
MEDICAL HEALTH STATS
MEDICAL STAT MEASURING DEVICE

FIG. 28

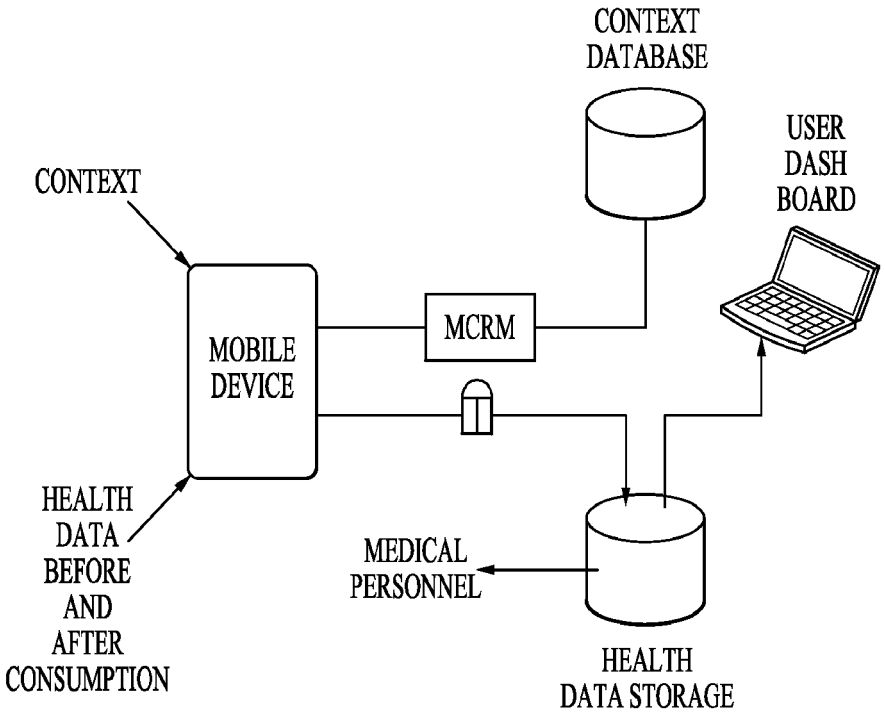

CONTEXT DATABASE
USER DASH BOARD
CONTEXT
MOBILE DEVICE
MCRM
HEALTH DATA BEFORE AND AFTER CONSUMPTION
MEDICAL PERSONNEL
HEALTH DATA STORAGE

FIG. 29

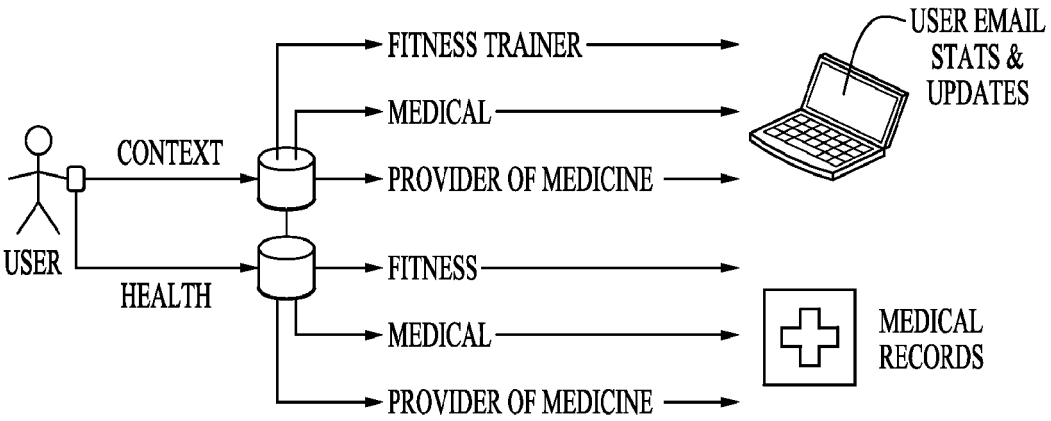
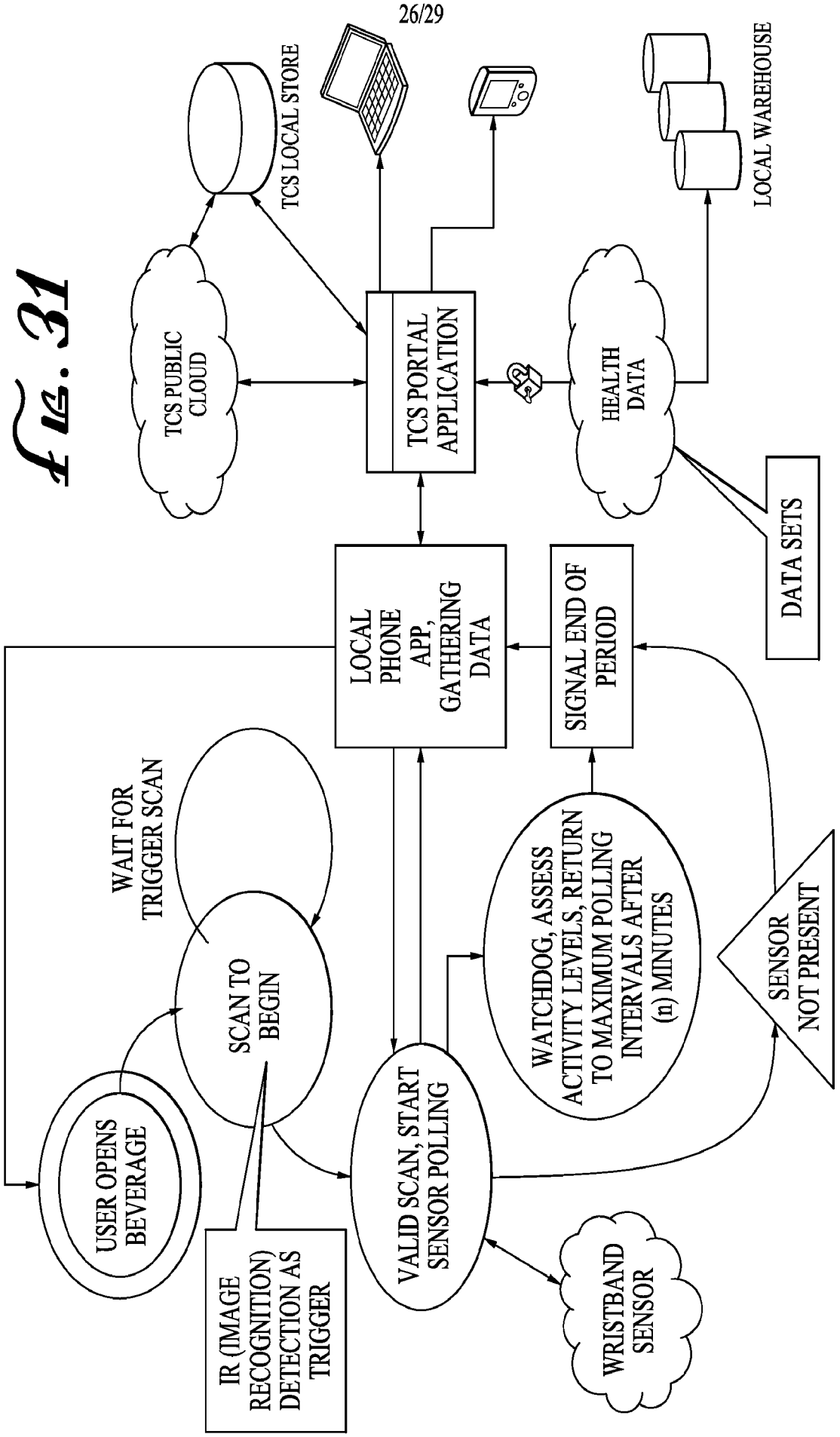

USER EMAIL STATS & UPDATES
FITNESS TRAINER
MEDICAL
PROVIDER OF MEDICINE
CONTEXT
USER
HEALTH
FITNESS
MEDICAL
PROVIDER OF MEDICINE
MEDICAL RECORDS

FIG. 30

Fig. 31


TCS LOCAL STORE
LOCAL WAREHOUSE
TCS PUBLIC CLOUD
TCS PORTAL APPLICATION
HEALTH DATA
DATA SETS
LOCAL PHONE APP, GATHERING DATA
SIGNAL END OF PERIOD
WAIT FOR TRIGGER SCAN
SCAN TO BEGIN
USER OPENS BEVERAGE
IR (IMAGE RECOGNITION) DETECTION AS TRIGGER
VALID SCAN, START SENSOR POLLING
WATCHDOG, ASSESS ACTIVITY LEVELS, RETURN TO MAXIMUM POLLING INTERVALS AFTER (n) MINUTES
SENSOR NOT PRESENT
WRISTBAND SENSOR

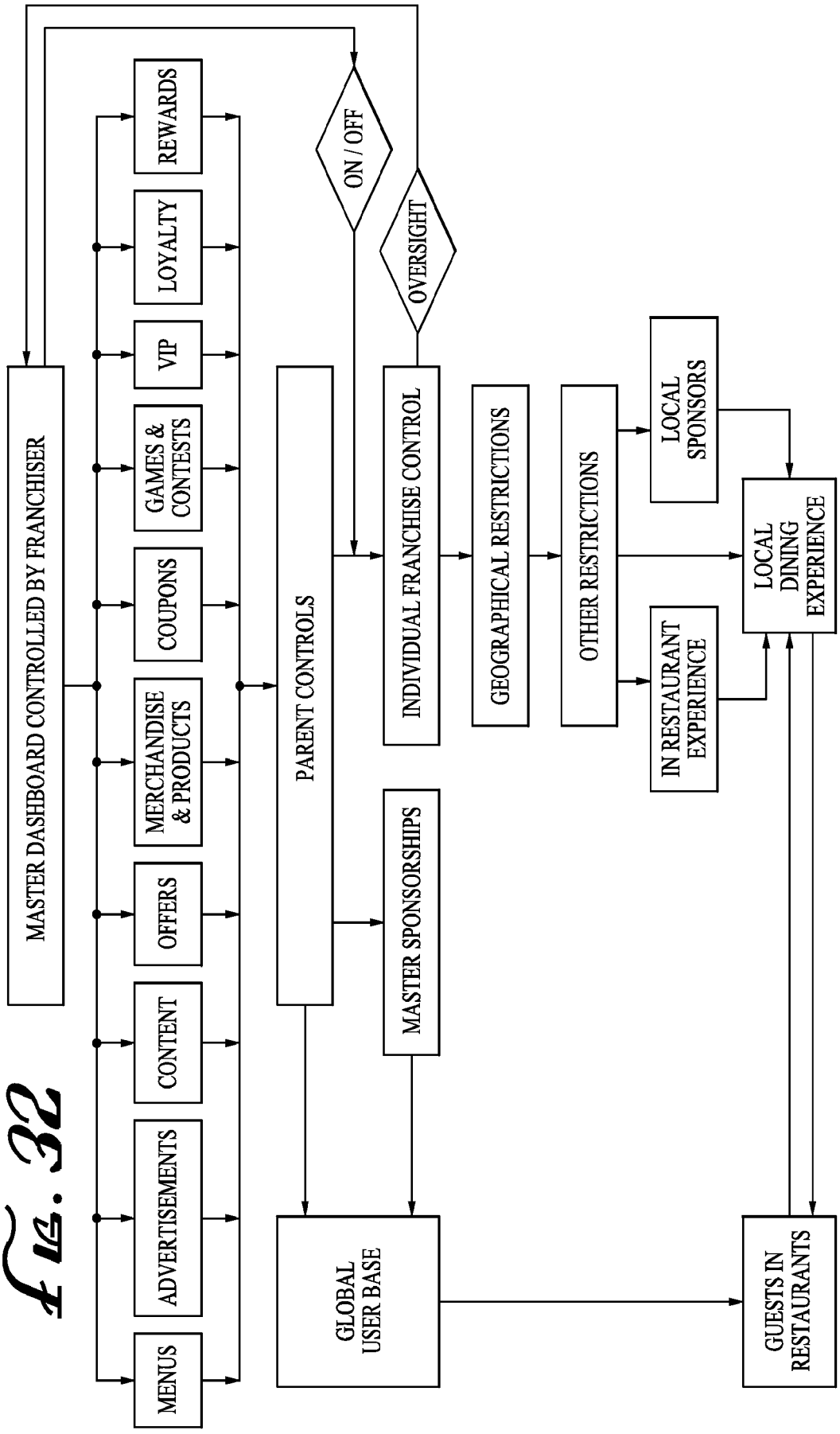
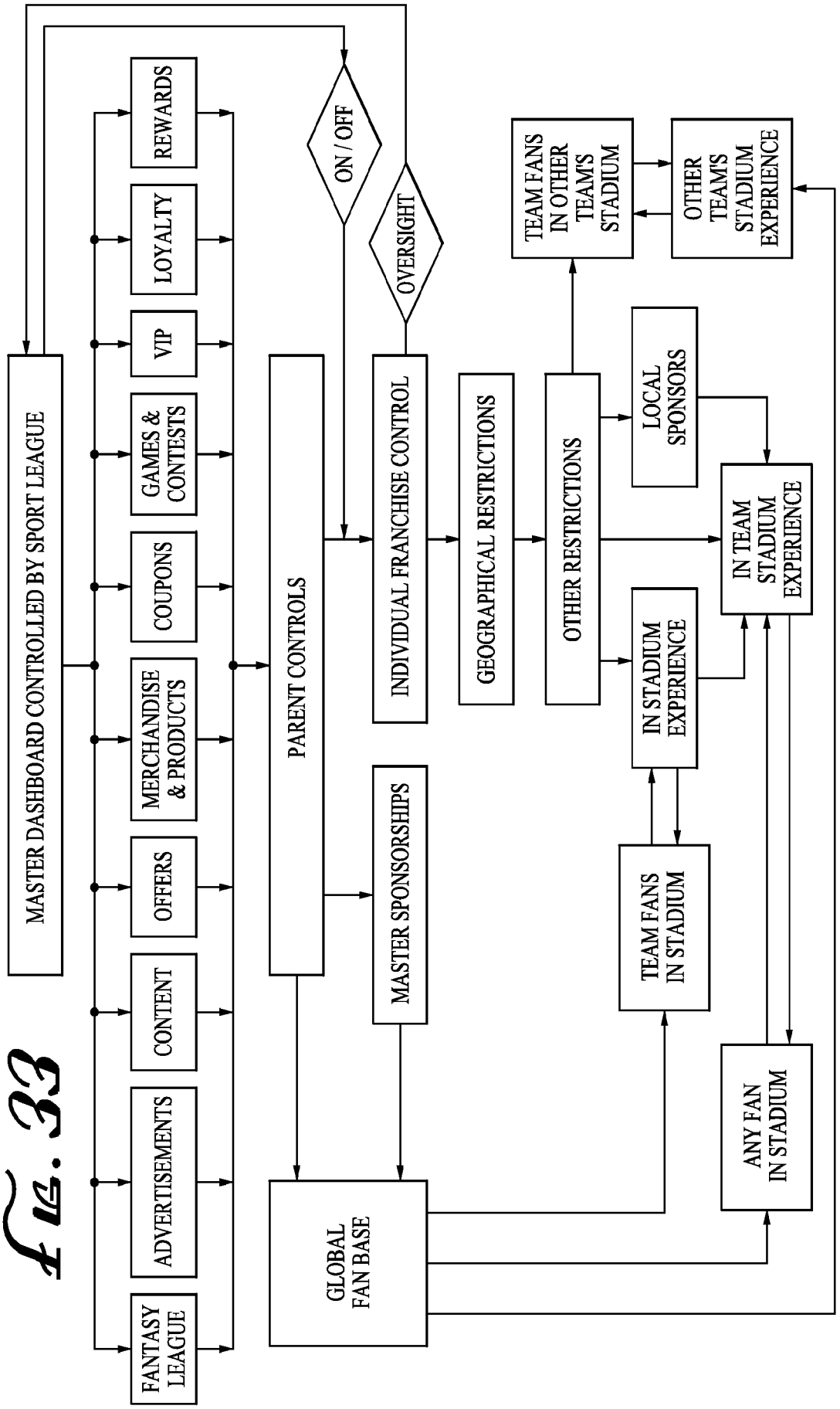

MASTER DASHBOARD CONTROLLED BY FRANCHISER
MENUS
ADVERTISEMENTS
CONTENT
OFFERS
MERCHANDISE & PRODUCTS
COUPONS
GAMES & CONTESTS
VIP
LOYALTY
REWARDS
ON / OFF
OVERSIGHT
PARENT CONTROLS
INDIVIDUAL FRANCHISE CONTROL
GEOGRAPHICAL RESTRICTIONS
OTHER RESTRICTIONS
LOCAL SPONSORS
IN RESTAURANT EXPERIENCE
LOCAL DINING EXPERIENCE
MASTER SPONSORSHIPS
GLOBAL USER BASE
GUESTS IN RESTAURANTS

Fig. 32

FIG. 33


MASTER DASHBOARD CONTROLLED BY SPORT LEAGUE
FANTASY LEAGUE
ADVERTISEMENTS
CONTENT
OFFERS
MERCHANDISE & PRODUCTS
COUPONS
GAMES & CONTESTS
VIP
LOYALTY
REWARDS
ON / OFF
OVERSIGHT
PARENT CONTROLS
INDIVIDUAL FRANCHISE CONTROL
MASTER SPONSORSHIPS
GEOGRAPHICAL RESTRICTIONS
OTHER RESTRICTIONS
TEAM FANS IN OTHER TEAM'S STADIUM
OTHER TEAM'S STADIUM EXPERIENCE
LOCAL SPONSORS
IN STADIUM EXPERIENCE
IN TEAM STADIUM EXPERIENCE
TEAM FANS IN STADIUM
GLOBAL FAN BASE
ANY FAN IN STADIUM

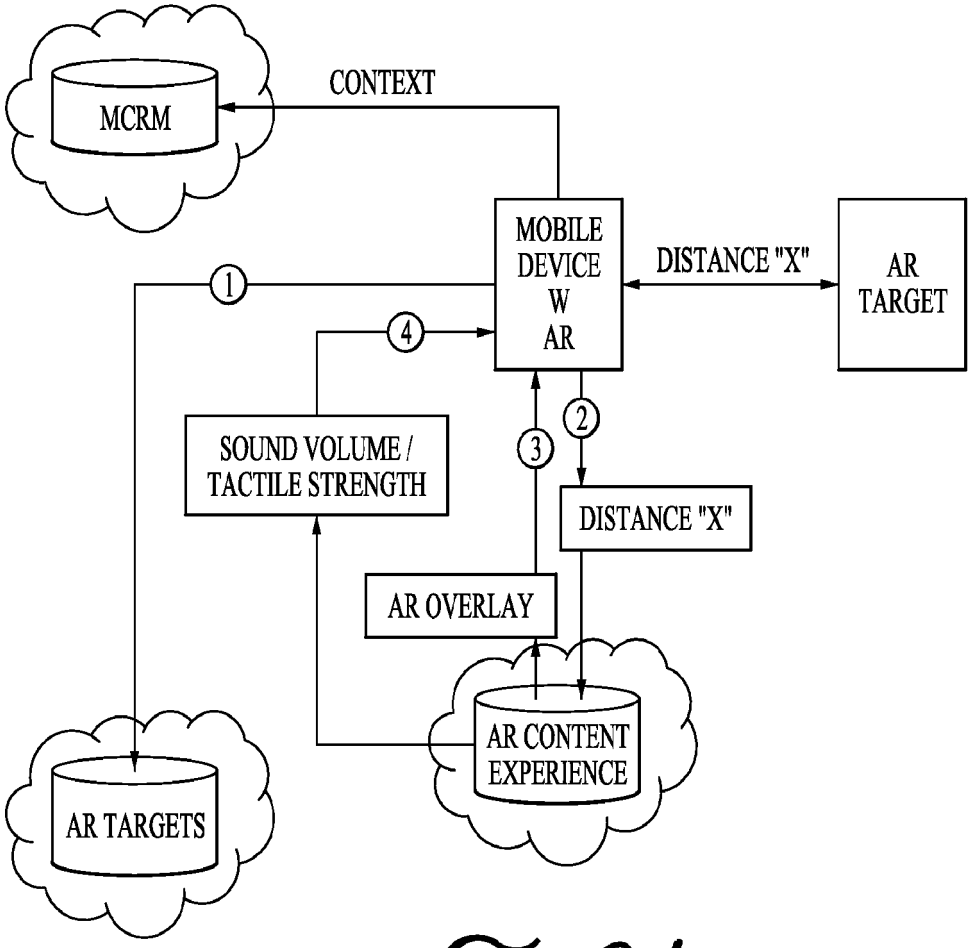

MCRM
CONTEXT
MOBILE DEVICE W AR
DISTANCE "X"
AR TARGET
1
4
2
3
SOUND VOLUME / TACTILE STRENGTH
DISTANCE "X"
AR OVERLAY
AR CONTENT EXPERIENCE
AR TARGETS

FIG. 34