FIG. 1

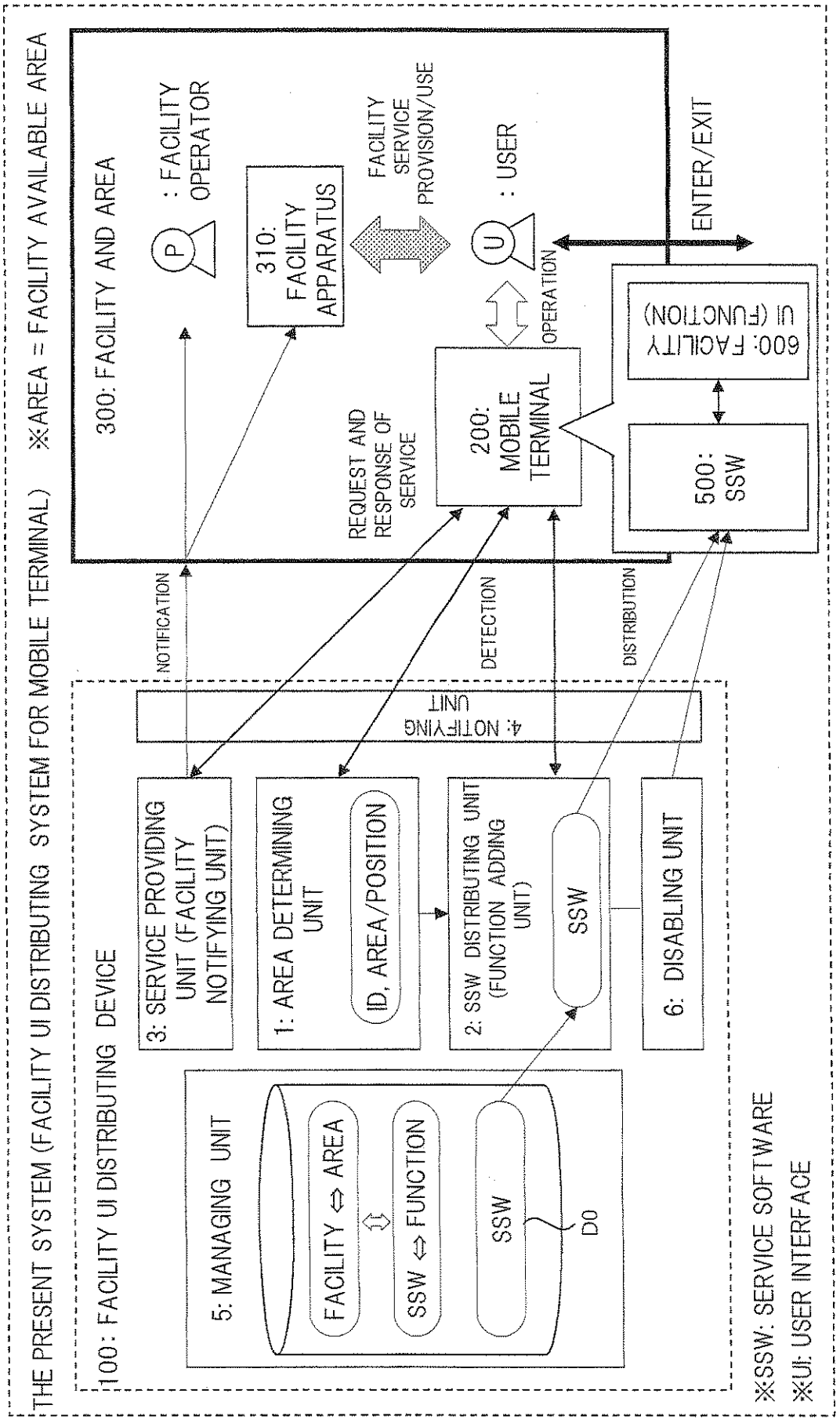

THE PRESENT SYSTEM (FACILITY UI DISTRIBUTING SYSTEM FOR MOBILE TERMINAL)
※AREA = FACILITY AVAILABLE AREA
100: FACILITY UI DISTRIBUTING DEVICE
300: FACILITY AND AREA
: FACILITY OPERATOR
310: FACILITY APPARATUS
FACILITY SERVICE PROVISION/USE
: USER
ENTER/EXIT
OPERATION
REQUEST AND RESPONSE OF SERVICE
200: MOBILE TERMINAL
600: FACILITY UI (FUNCTION)
500: SSW
NOTIFICATION
DETECTION
DISTRIBUTION
4: NOTIFYING UNIT
3: SERVICE PROVIDING UNIT (FACILITY NOTIFYING UNIT)
1: AREA DETERMINING UNIT
ID, AREA/POSITION
2: SSW DISTRIBUTING UNIT (FUNCTION ADDING UNIT)
SSW
6: DISABLING UNIT
5: MANAGING UNIT
FACILITY ⇔ AREA
SSW ⇔ FUNCTION
SSW
D0
※SSW: SERVICE SOFTWARE
※UI: USER INTERFACE

FIG. 2

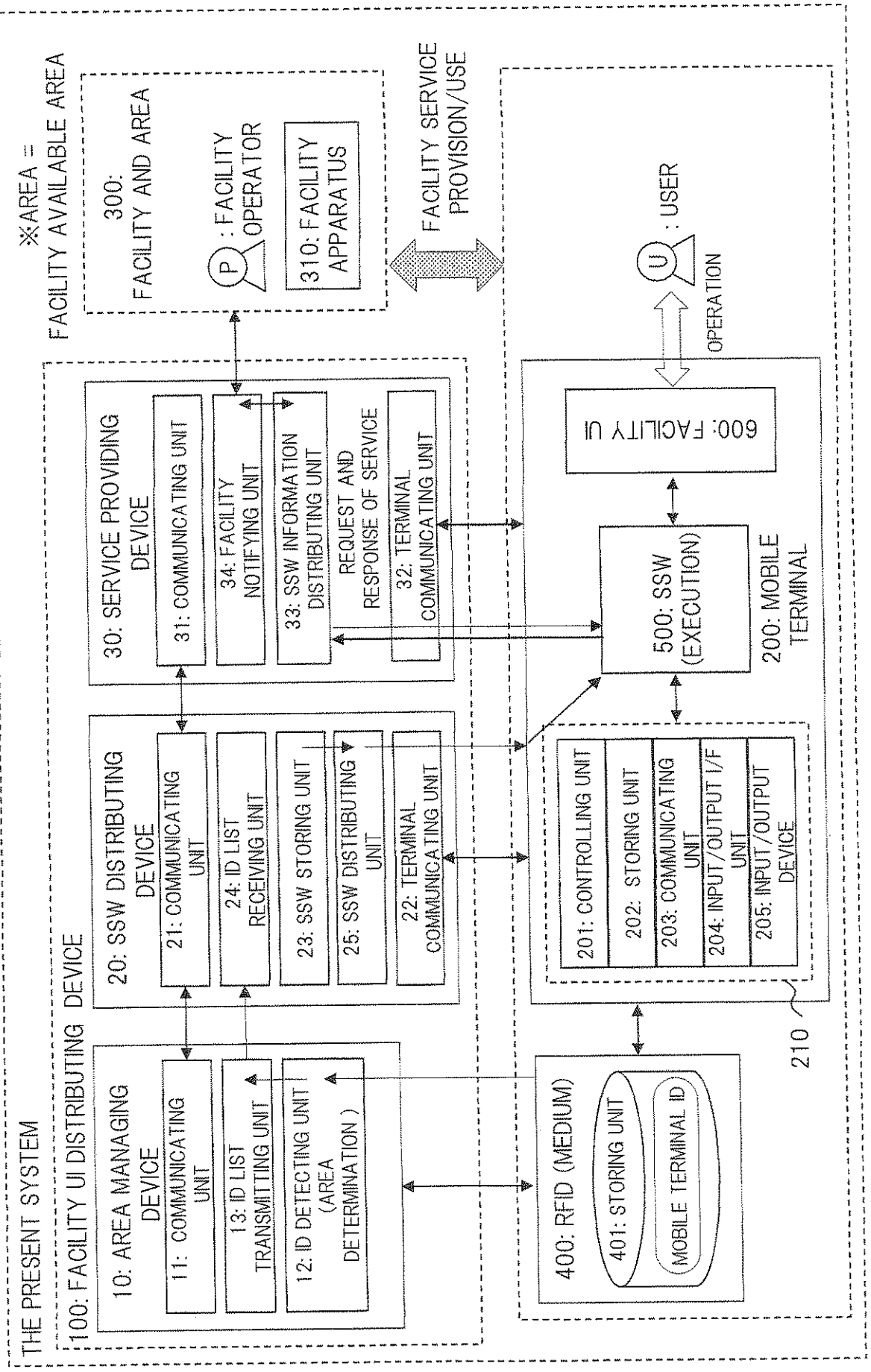

THE PRESENT SYSTEM
※AREA = FACILITY AVAILABLE AREA
100: FACILITY UI DISTRIBUTING DEVICE
300: FACILITY AND AREA
P: FACILITY OPERATOR
310: FACILITY APPARATUS
FACILITY SERVICE PROVISION/USE
U: USER
OPERATION
30: SERVICE PROVIDING DEVICE
31: COMMUNICATING UNIT
34: FACILITY NOTIFYING UNIT
33: SSW INFORMATION DISTRIBUTING UNIT
REQUEST AND RESPONSE OF SERVICE
32: TERMINAL COMMUNICATING UNIT
20: SSW DISTRIBUTING DEVICE
21: COMMUNICATING UNIT
24: ID LIST RECEIVING UNIT
23: SSW STORING UNIT
25: SSW DISTRIBUTING UNIT
22: TERMINAL COMMUNICATING UNIT
10: AREA MANAGING DEVICE
11: COMMUNICATING UNIT
13: ID LIST TRANSMITTING UNIT
12: ID DETECTING UNIT (AREA DETERMINATION)
600: FACILITY UI
500: SSW (EXECUTION)
200: MOBILE TERMINAL
201: CONTROLLING UNIT
202: STORING UNIT
203: COMMUNICATING UNIT
204: INPUT/OUTPUT I/F UNIT
205: INPUT/OUTPUT DEVICE
210
400: RFID (MEDIUM)
401: STORING UNIT
MOBILE TERMINAL ID

FIG. 3

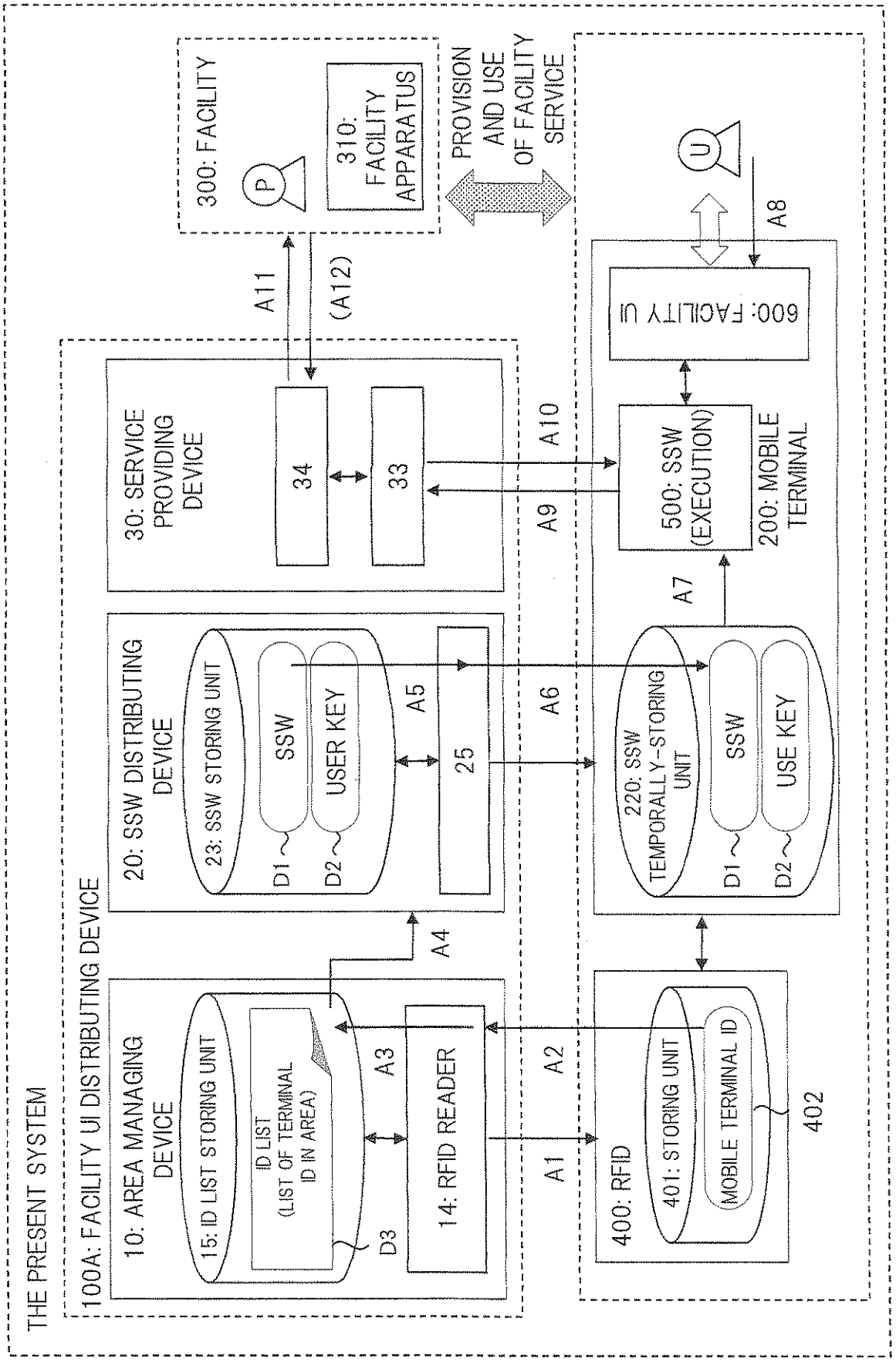

THE PRESENT SYSTEM
100A: FACILITY UI DISTRIBUTING DEVICE
10: AREA MANAGING DEVICE
15: ID LIST STORING UNIT
ID LIST (LIST OF TERMINAL ID IN AREA)
D3
14: RFID READER
20: SSW DISTRIBUTING DEVICE
23: SSW STORING UNIT
D1
SSW
D2
USER KEY
25
30: SERVICE PROVIDING DEVICE
34
33
300: FACILITY
P
310: FACILITY APPARATUS
PROVISION AND USE OF FACILITY SERVICE
400: RFID
401: STORING UNIT
MOBILE TERMINAL ID
402
220: SSW TEMPORALLY-STORING UNIT
D1
SSW
D2
USE KEY
500: SSW (EXECUTION)
200: MOBILE TERMINAL
600: FACILITY UI
U
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A11
(A12)

FIG. 4

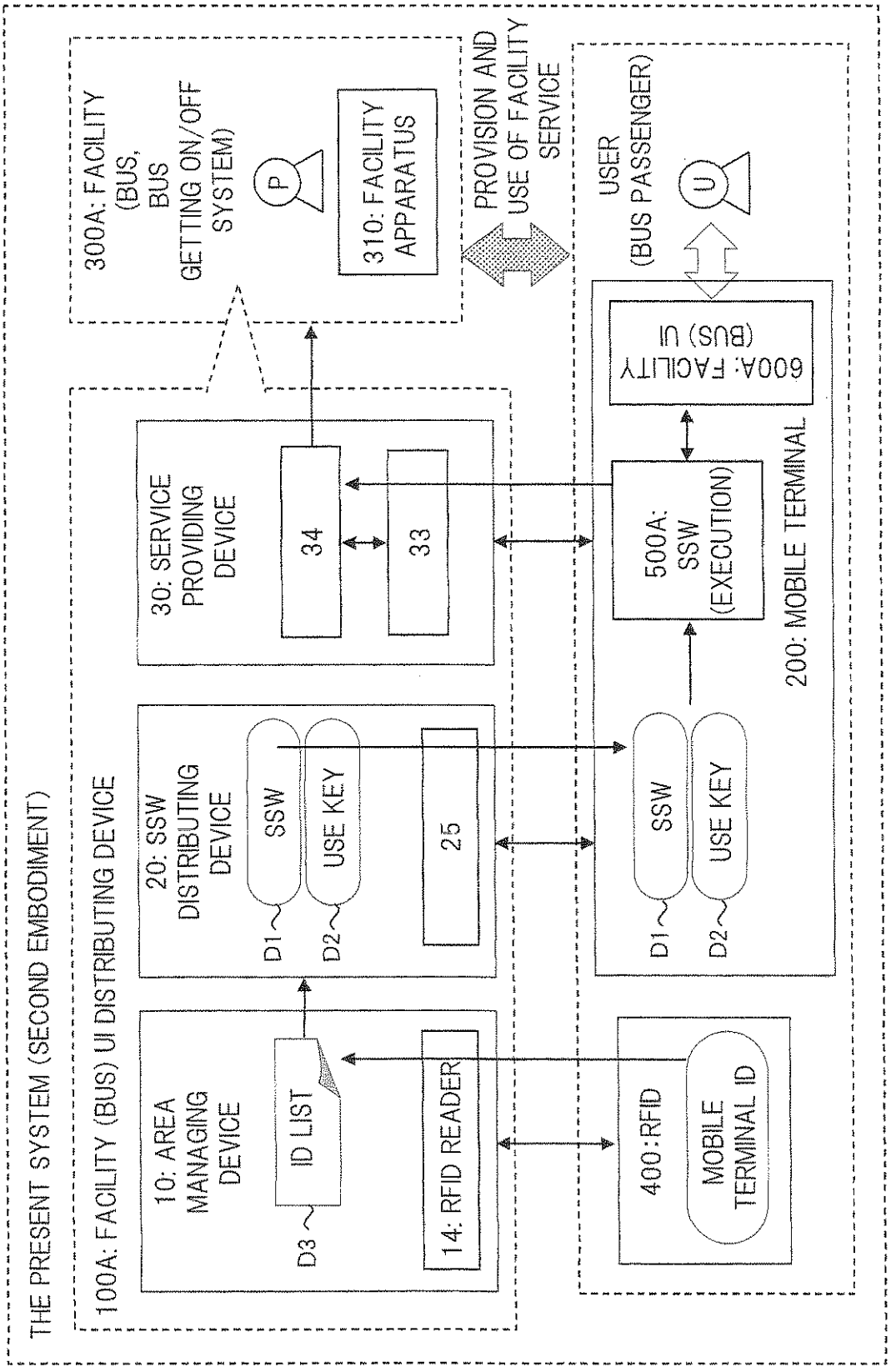

THE PRESENT SYSTEM (SECOND EMBODIMENT)
100A: FACILITY (BUS) UI DISTRIBUTING DEVICE
10: AREA MANAGING DEVICE
ID LIST
D3
14: RFID READER
20: SSW DISTRIBUTING DEVICE
SSW
USE KEY
D1
D2
25
30: SERVICE PROVIDING DEVICE
34
33
300A: FACILITY (BUS, BUS GETTING ON/OFF SYSTEM)
P
310: FACILITY APPARATUS
PROVISION AND USE OF FACILITY SERVICE
400: RFID
MOBILE TERMINAL ID
200: MOBILE TERMINAL
SSW
USE KEY
D1
D2
500A: SSW (EXECUTION)
600A: FACILITY UI (BUS)
USER (BUS PASSENGER)
U

FIG. 5

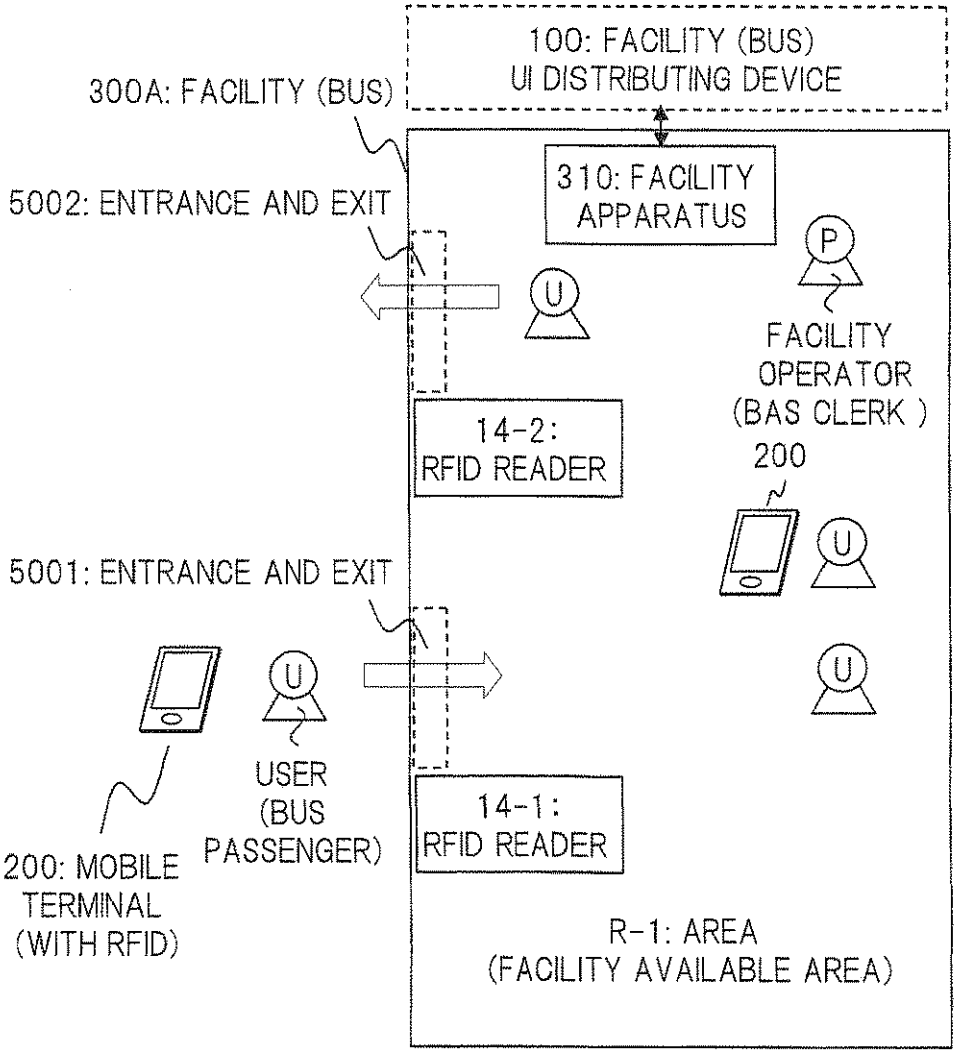

100: FACILITY (BUS)
UI DISTRIBUTING DEVICE
300A: FACILITY (BUS)
310: FACILITY APPARATUS
5002: ENTRANCE AND EXIT
U
P
FACILITY OPERATOR (BAS CLERK)
14-2: RFID READER
200
5001: ENTRANCE AND EXIT
USER (BUS PASSENGER)
200: MOBILE TERMINAL (WITH RFID)
14-1: RFID READER
R-1: AREA (FACILITY AVAILABLE AREA)

FIG. 6

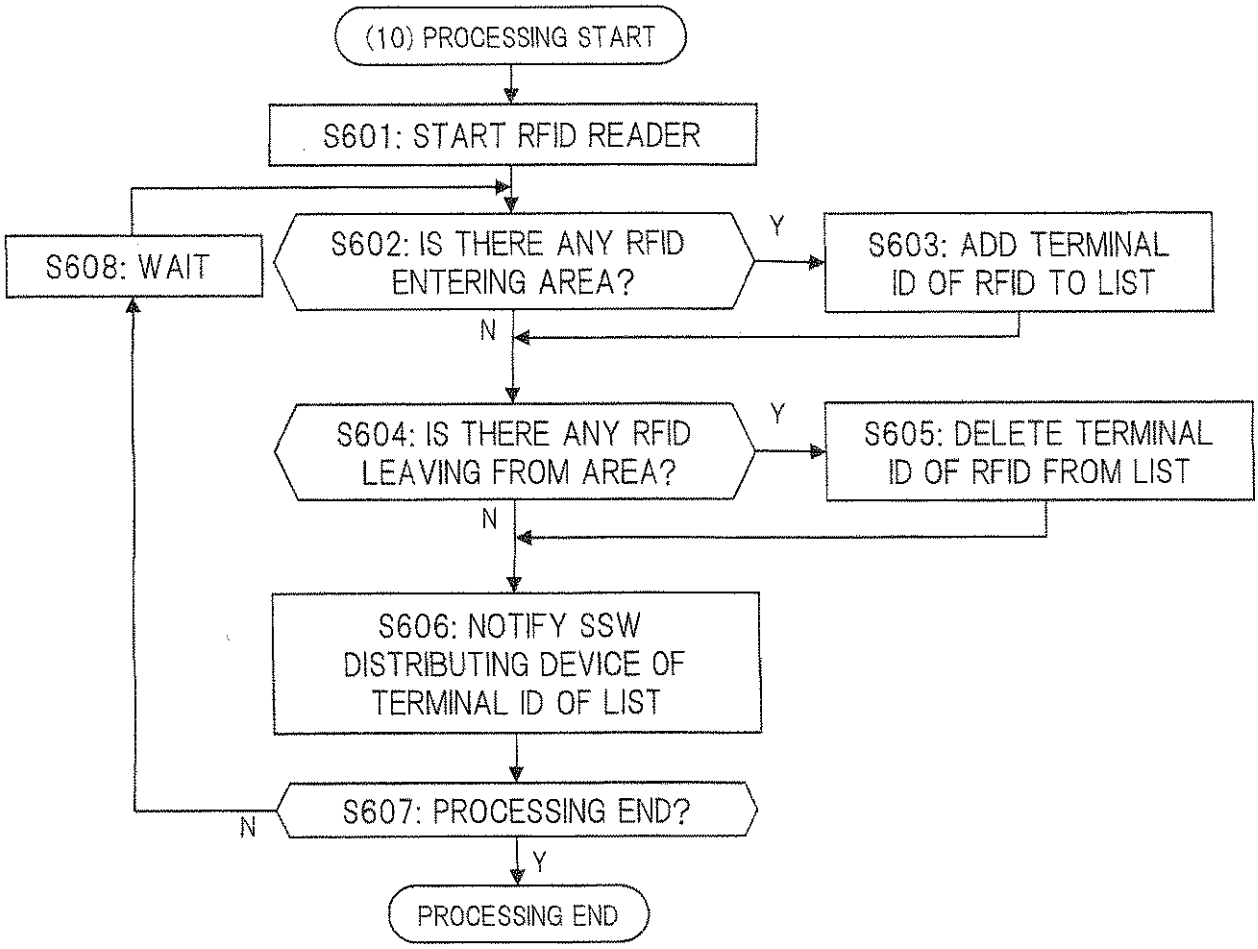

(10) PROCESSING START
S601: START RFID READER
S602: IS THERE ANY RFID ENTERING AREA?
Y
S603: ADD TERMINAL ID OF RFID TO LIST
S608: WAIT
N
S604: IS THERE ANY RFID LEAVING FROM AREA?
Y
S605: DELETE TERMINAL ID OF RFID FROM LIST
N
S606: NOTIFY SSW DISTRIBUTING DEVICE OF TERMINAL ID OF LIST
S607: PROCESSING END?
N
Y
PROCESSING END

FIG. 7

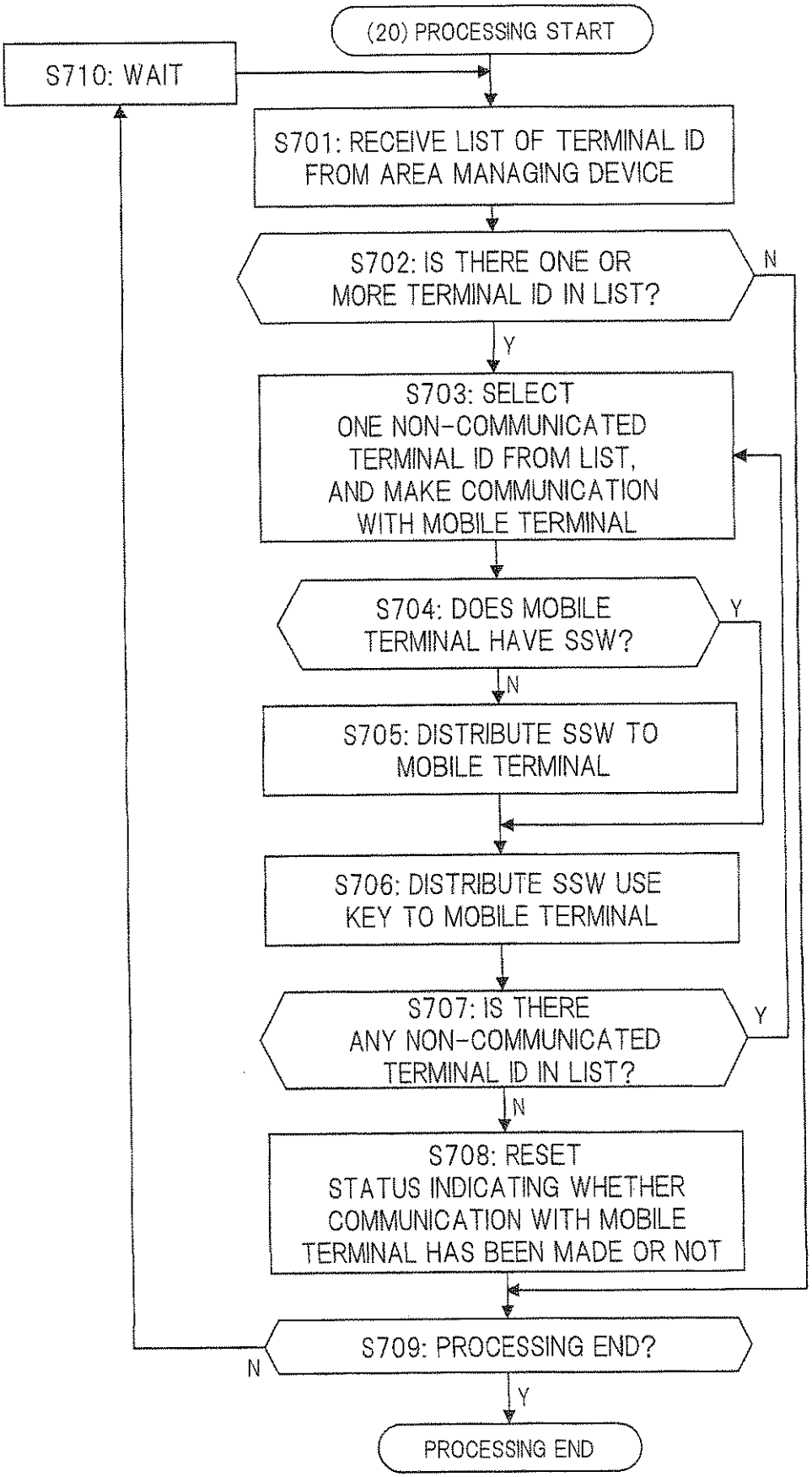

(20) PROCESSING START
S710: WAIT
S701: RECEIVE LIST OF TERMINAL ID FROM AREA MANAGING DEVICE
S702: IS THERE ONE OR MORE TERMINAL ID IN LIST?
N
Y
S703: SELECT ONE NON-COMMUNICATED TERMINAL ID FROM LIST, AND MAKE COMMUNICATION WITH MOBILE TERMINAL
S704: DOES MOBILE TERMINAL HAVE SSW?
Y
N
S705: DISTRIBUTE SSW TO MOBILE TERMINAL
S706: DISTRIBUTE SSW USE KEY TO MOBILE TERMINAL
S707: IS THERE ANY NON-COMMUNICATED TERMINAL ID IN LIST?
Y
N
S708: RESET STATUS INDICATING WHETHER COMMUNICATION WITH MOBILE TERMINAL HAS BEEN MADE OR NOT
S709: PROCESSING END?
N
Y
PROCESSING END

FIG. 8

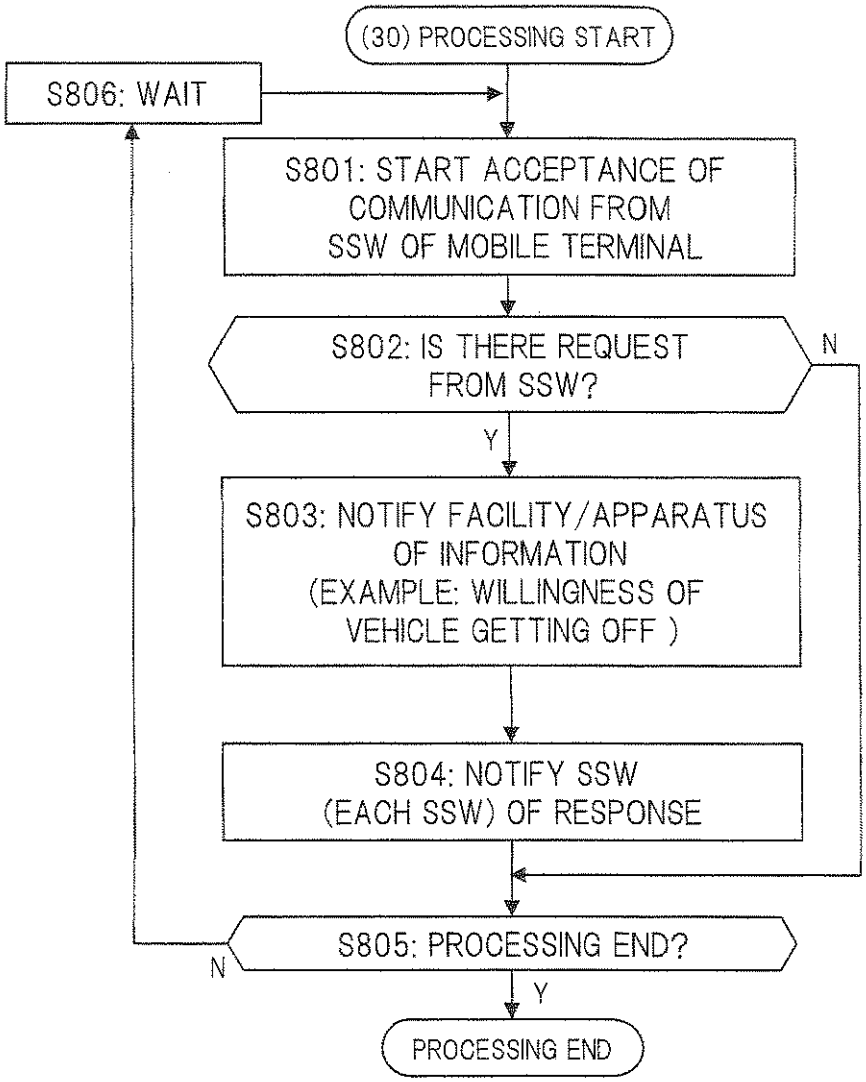

(30) PROCESSING START
S806: WAIT
S801: START ACCEPTANCE OF COMMUNICATION FROM SSW OF MOBILE TERMINAL
S802: IS THERE REQUEST FROM SSW?
N
Y
S803: NOTIFY FACILITY/APPARATUS OF INFORMATION (EXAMPLE: WILLINGNESS OF VEHICLE GETTING OFF)
S804: NOTIFY SSW (EACH SSW) OF RESPONSE
S805: PROCESSING END?
N
Y
PROCESSING END

FIG. 9

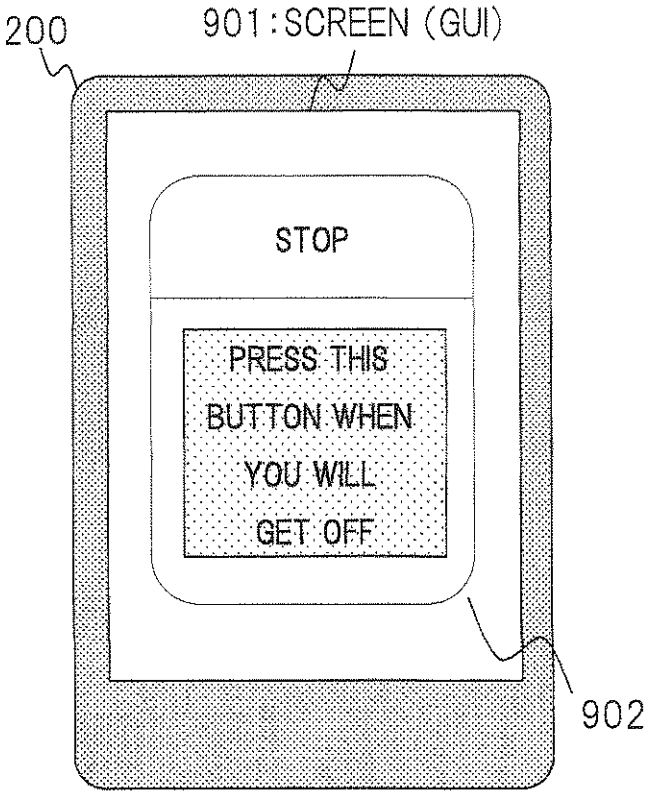

200
901:SCREEN (GUI)
STOP
PRESS THIS BUTTON WHEN YOU WILL GET OFF
902

FIG. 10

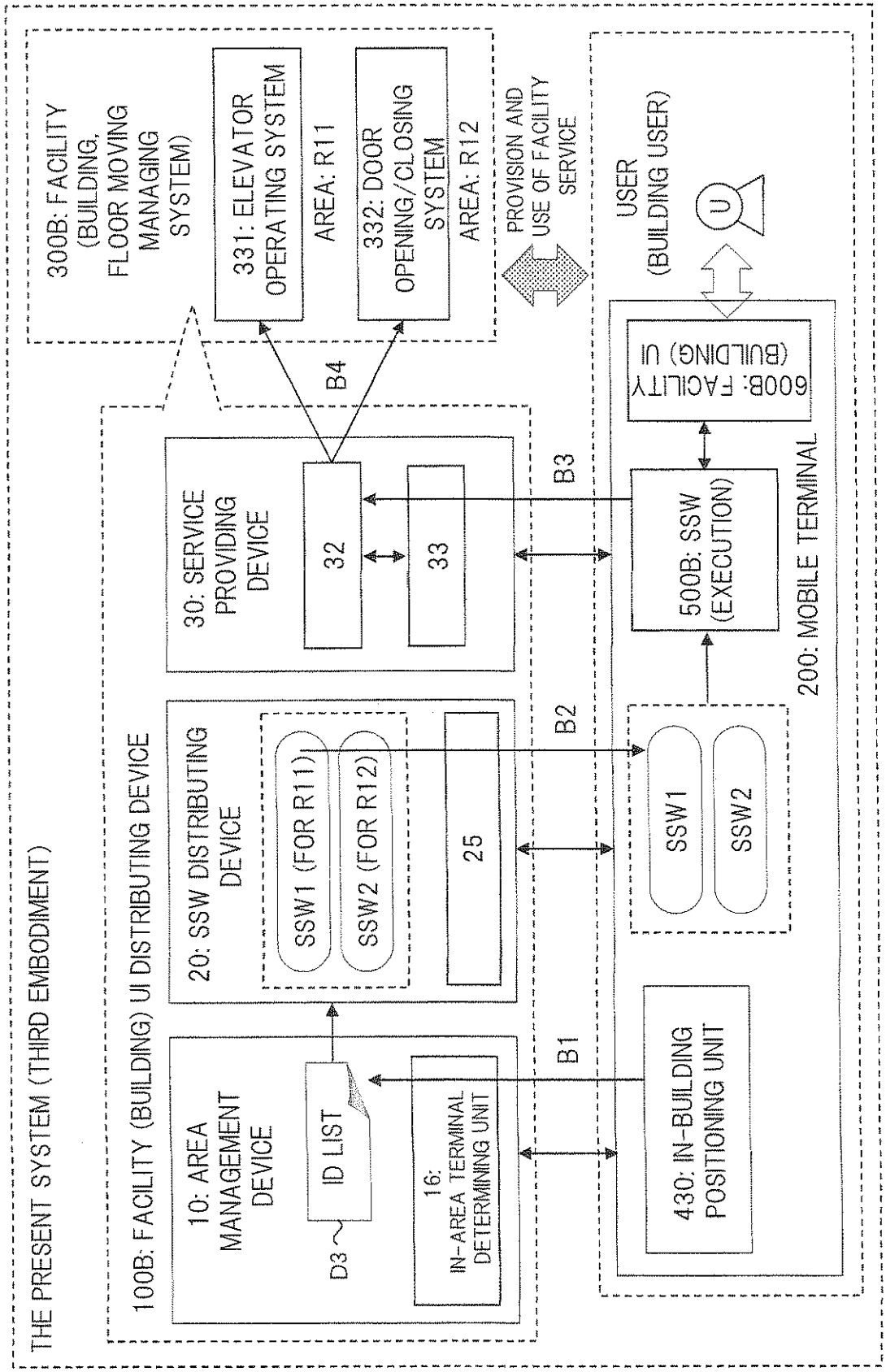

THE PRESENT SYSTEM (THIRD EMBODIMENT)
100B: FACILITY (BUILDING) UI DISTRIBUTING DEVICE
10: AREA MANAGEMENT DEVICE
ID LIST
D3
16: IN-AREA TERMINAL DETERMINING UNIT
20: SSW DISTRIBUTING DEVICE
SSW1 (FOR R11)
SSW2 (FOR R12)
25
30: SERVICE PROVIDING DEVICE
32
33
300B: FACILITY (BUILDING, FLOOR MOVING MANAGING SYSTEM)
331: ELEVATOR OPERATING SYSTEM
AREA: R11
332: DOOR OPENING/CLOSING SYSTEM
AREA: R12
PROVISION AND USE OF FACILITY SERVICE
B1
B2
B3
B4
200: MOBILE TERMINAL
430: IN-BUILDING POSITIONING UNIT
SSW1
SSW2
500B: SSW (EXECUTION)
600B: FACILITY (BUILDING) UI
USER (BUILDING USER)
U

FIG. 11

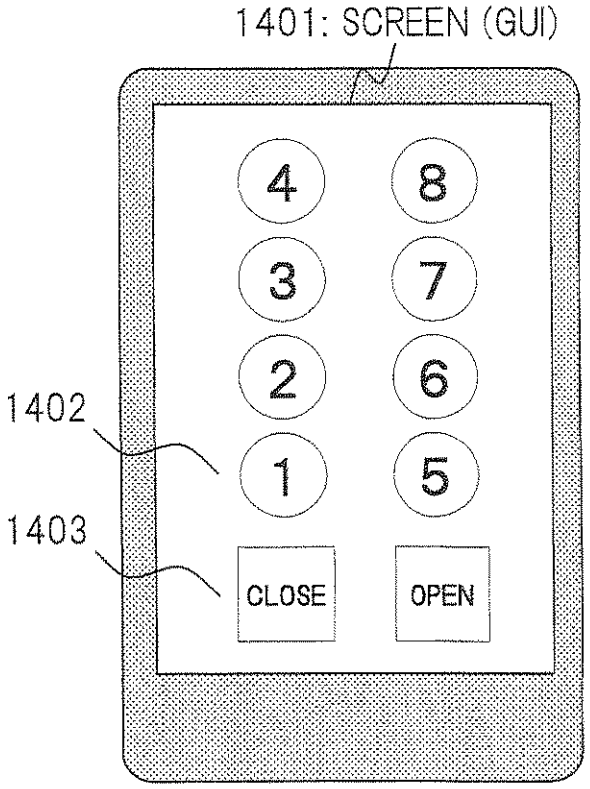

1401: SCREEN (GUI)
4
8
3
7
2
6
1
5
1402
1403
CLOSE
OPEN

FIG. 12

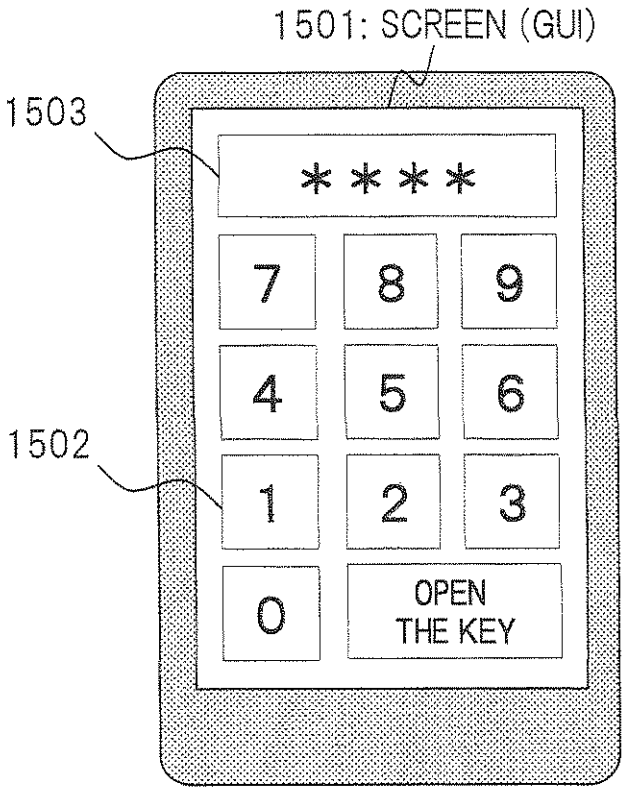

1501: SCREEN (GUI)
1503
* * * *
7
8
9
4
5
6
1502
1
2
3
0
OPEN
THE KEY

FIG. 13

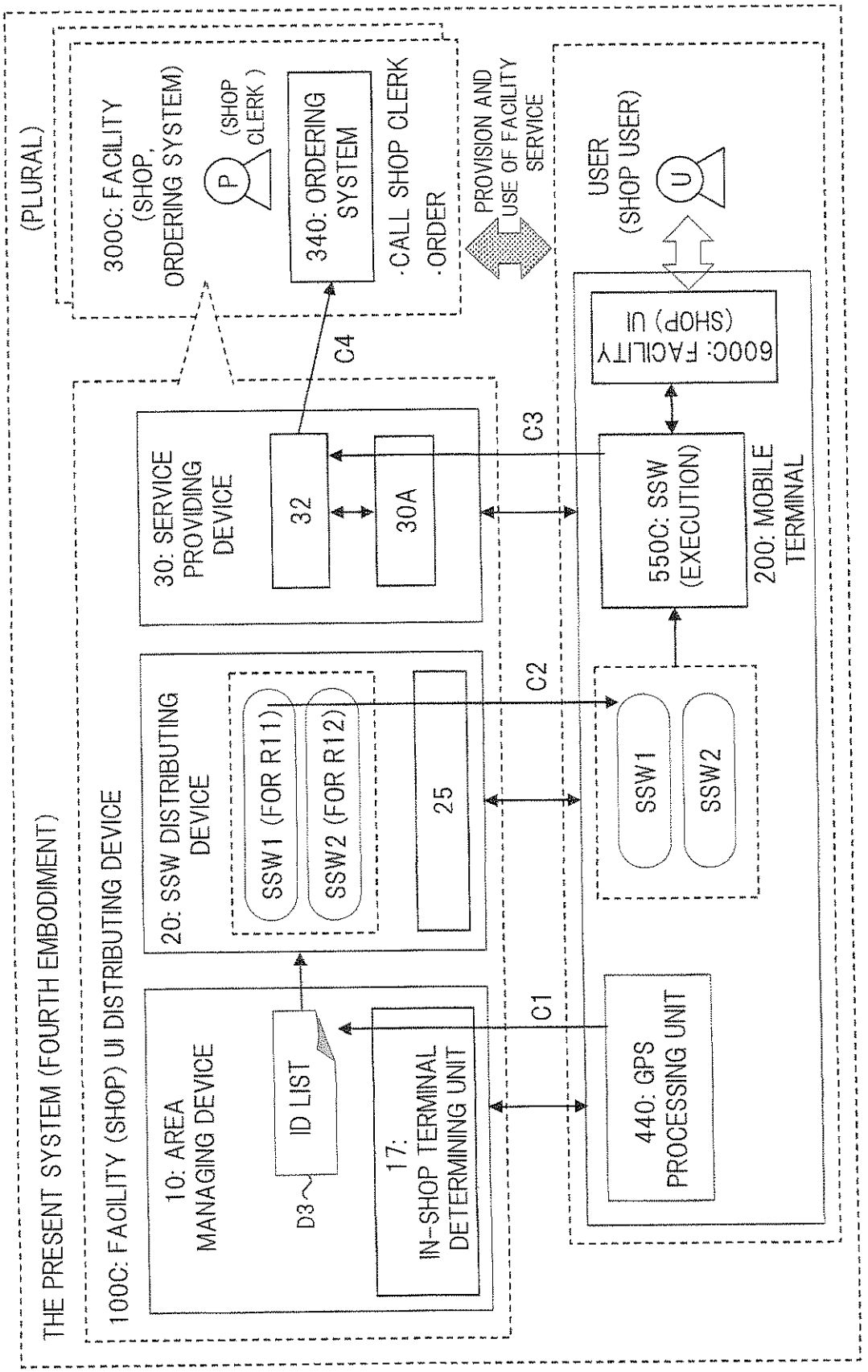

THE PRESENT SYSTEM (FOURTH EMBODIMENT)
(PLURAL)
100C: FACILITY (SHOP) UI DISTRIBUTING DEVICE
10: AREA MANAGING DEVICE
ID LIST
D3
17: IN-SHOP TERMINAL DETERMINING UNIT
20: SSW DISTRIBUTING DEVICE
SSW1 (FOR R11)
SSW2 (FOR R12)
25
30: SERVICE PROVIDING DEVICE
32
30A
300C: FACILITY (SHOP, ORDERING SYSTEM)
P
(SHOP CLERK)
340: ORDERING SYSTEM
·CALL SHOP CLERK
·ORDER
PROVISION AND USE OF FACILITY SERVICE
USER (SHOP USER)
U
600C: FACILITY (SHOP) UI
550C: SSW (EXECUTION)
SSW1
SSW2
200: MOBILE TERMINAL
440: GPS PROCESSING UNIT
C1
C2
C3
C4

FIG. 14

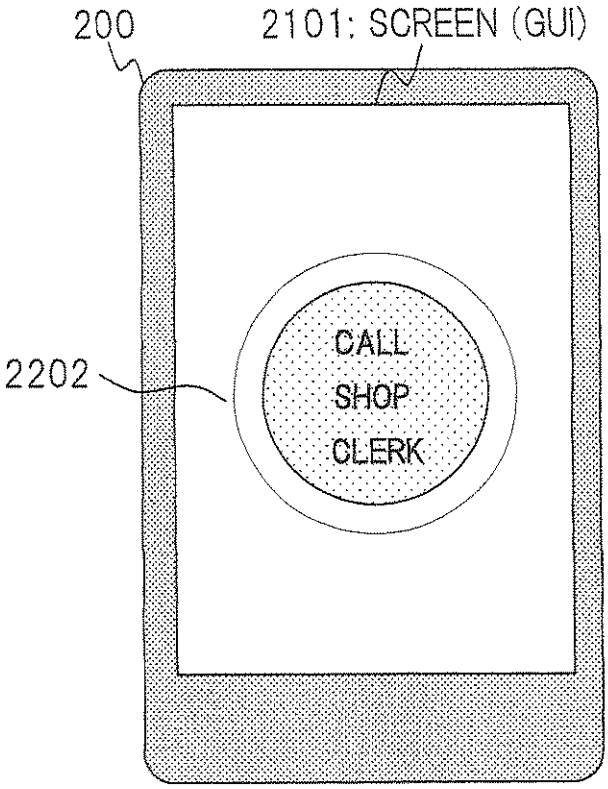
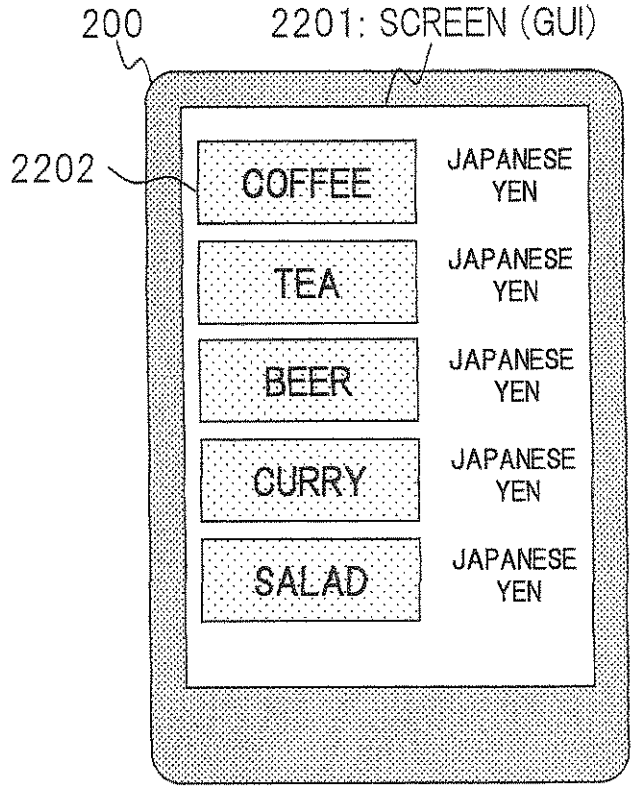

200
2101: SCREEN (GUI)
2202
CALL
SHOP
CLERK

FIG. 15


200
2201: SCREEN (GUI)
2202
COFFEE
JAPANESE YEN
TEA
JAPANESE YEN
BEER
JAPANESE YEN
CURRY
JAPANESE YEN
SALAD
JAPANESE YEN