FIG. 1

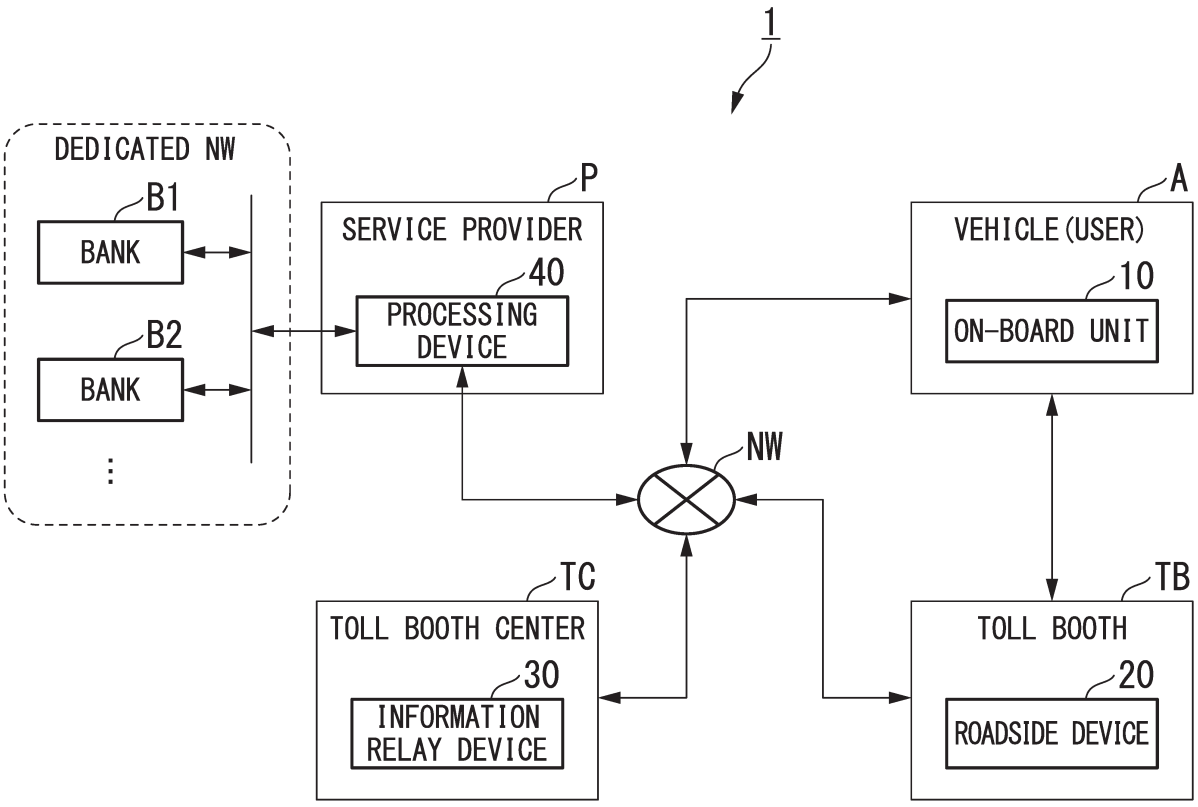

1
DEDICATED NW
B1
BANK
B2
BANK
P
SERVICE PROVIDER
40
PROCESSING DEVICE
A
VEHICLE (USER)
10
ON-BOARD UNIT
NW
TC
TOLL BOOTH CENTER
30
INFORMATION RELAY DEVICE
TB
TOLL BOOTH
20
ROADSIDE DEVICE

FIG. 2

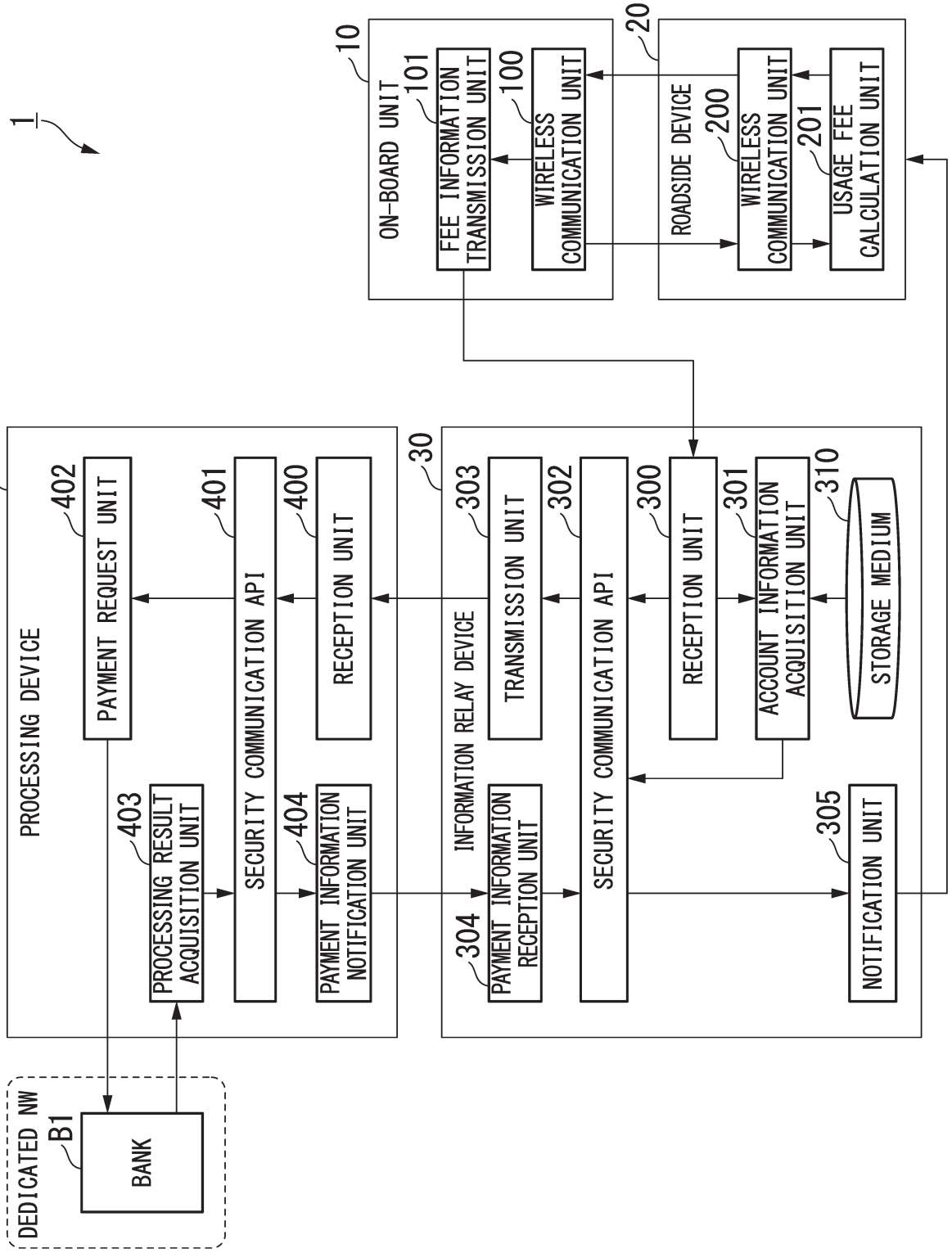

1
10
ON-BOARD UNIT
101
FEE INFORMATION TRANSMISSION UNIT
100
WIRELESS COMMUNICATION UNIT
20
ROADSIDE DEVICE
200
WIRELESS COMMUNICATION UNIT
201
USAGE FEE CALCULATION UNIT
40
PROCESSING DEVICE
402
PAYMENT REQUEST UNIT
401
SECURITY COMMUNICATION API
400
RECEPTION UNIT
403
PROCESSING RESULT ACQUISITION UNIT
404
PAYMENT INFORMATION NOTIFICATION UNIT
30
INFORMATION RELAY DEVICE
303
TRANSMISSION UNIT
302
SECURITY COMMUNICATION API
300
RECEPTION UNIT
301
ACCOUNT INFORMATION ACQUISITION UNIT
310
STORAGE MEDIUM
304
PAYMENT INFORMATION RECEPTION UNIT
305
NOTIFICATION UNIT
DEDICATED NW
B1
BANK

FIG. 3

D1

<FEE INFORMATION>

IDENTIFICATION INFORMATION	USAGE FEE
UID00001	¥1000

FIG. 4

D2

<REGISTRATION TABLE>

IDENTIFICATION INFORMATION	ACCOUNT INFORMATION
UID00001	ACCOUNT ID, PIN
UID00002	ACCOUNT ID, PIN
UID00003	ACCOUNT ID, PIN

FIG. 5

D3

<BILL INFORMATION>

IDENTIFICATION INFORMATION	ACCOUNT INFORMATION	USAGE FEE
UID00001	ACCOUNT ID, PIN	¥1000

FIG. 6

D4

<PAYMENT INFORMATION>

IDENTIFICATION INFORMATION	ACCOUNT INFORMATION	PROCESSING RESULT
UID00001	ACCOUNT ID, PIN	INSUFFICIENT BALANCE

FIG. 7

<PAYMENT REQUEST INFORMATION> D5

IDENTIFICATION INFORMATION	ACCOUNT INFORMATION	USAGE FEE	PAYEE INFORMATION
UID00001	ACCOUNT ID, PIN	¥1000	ACCOUNT ID OF TOLL BOOTH CENTER TC

FIG. 8

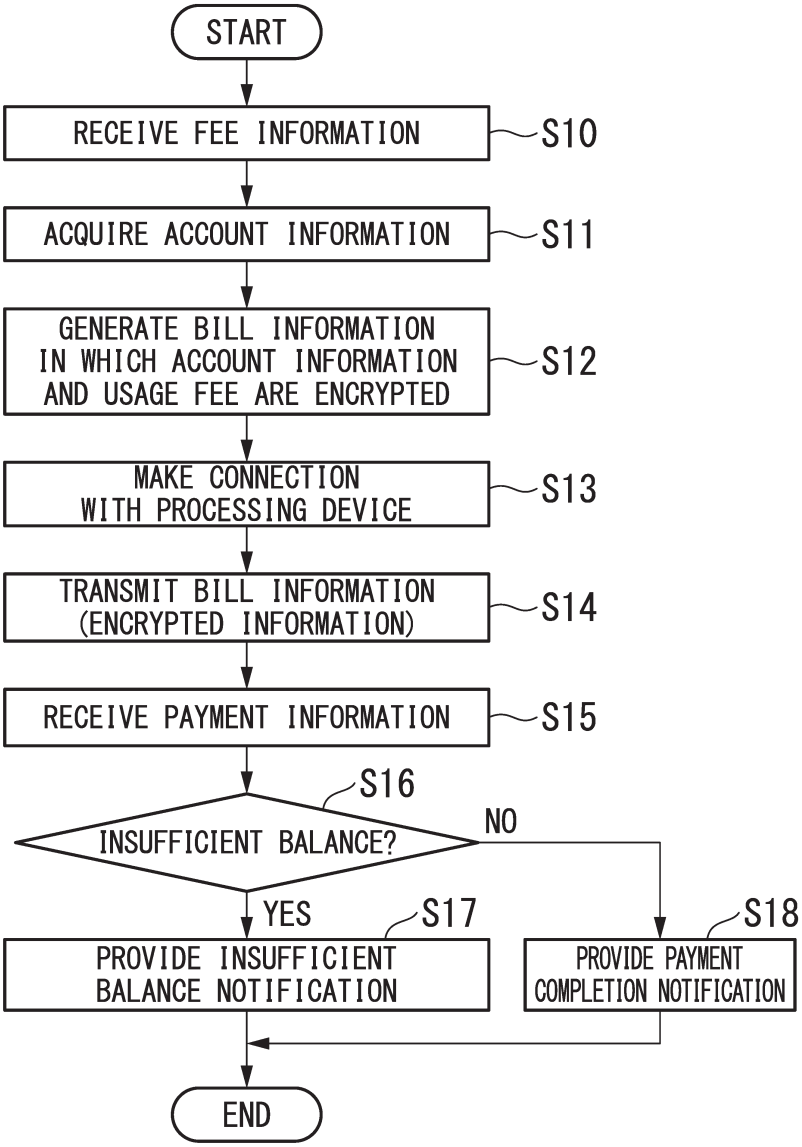


FIG. 9

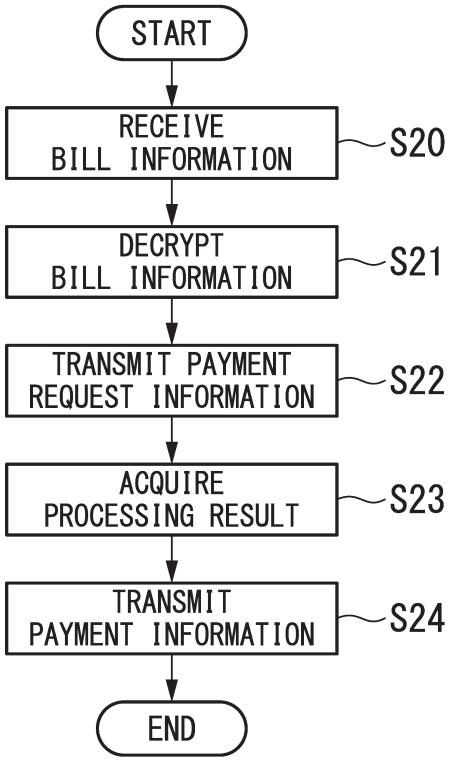

START
RECEIVE BILL INFORMATION
S20
DECRYPT BILL INFORMATION
S21
TRANSMIT PAYMENT REQUEST INFORMATION
S22
ACQUIRE PROCESSING RESULT
S23
TRANSMIT PAYMENT INFORMATION
S24
END

FIG. 10

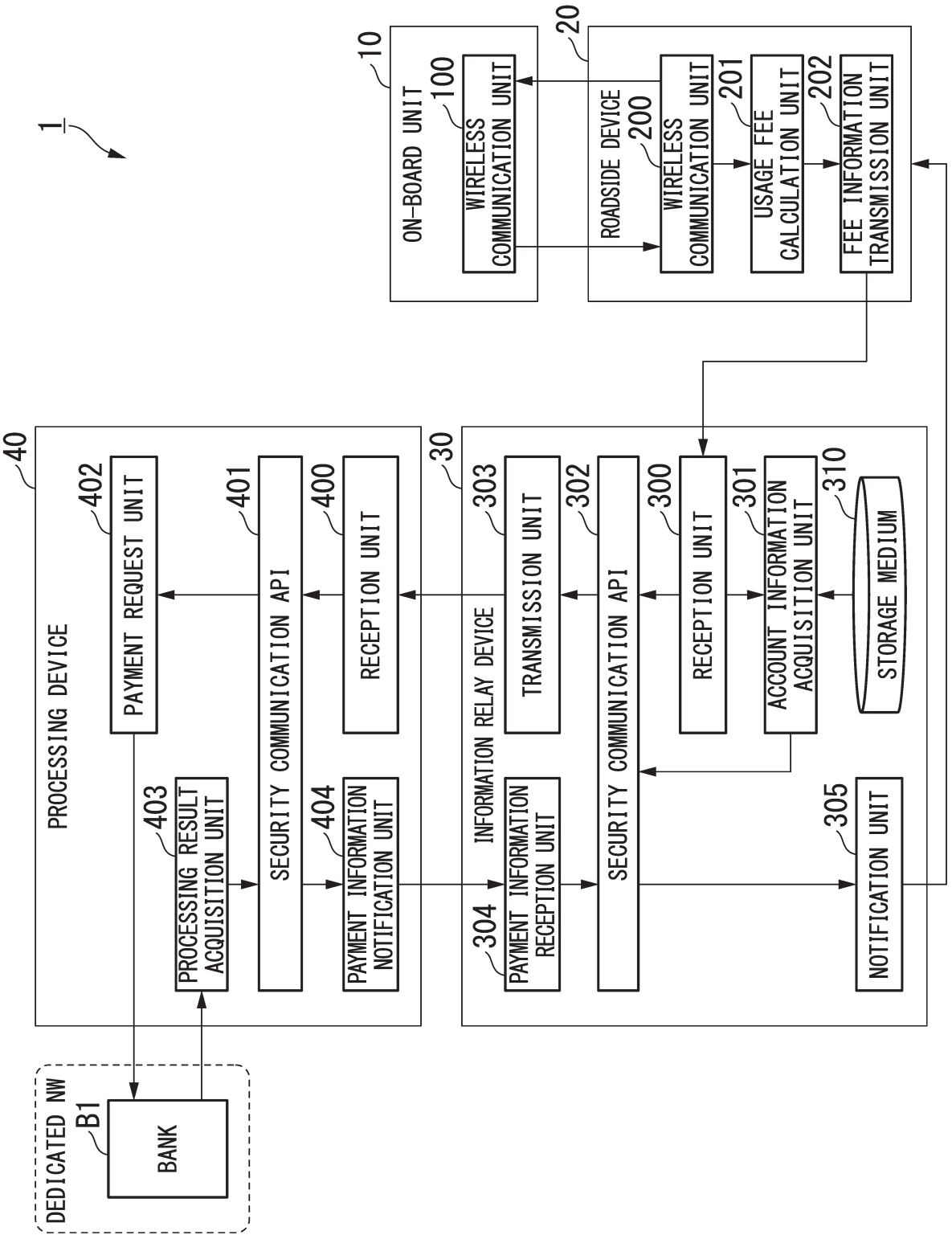

1
10
ON-BOARD UNIT
100
WIRELESS COMMUNICATION UNIT
20
ROADSIDE DEVICE
200
WIRELESS COMMUNICATION UNIT
201
USAGE FEE CALCULATION UNIT
202
FEE INFORMATION TRANSMISSION UNIT
40
PROCESSING DEVICE
402
PAYMENT REQUEST UNIT
401
SECURITY COMMUNICATION API
400
RECEPTION UNIT
403
PROCESSING RESULT ACQUISITION UNIT
404
PAYMENT INFORMATION NOTIFICATION UNIT
30
INFORMATION RELAY DEVICE
303
TRANSMISSION UNIT
302
SECURITY COMMUNICATION API
300
RECEPTION UNIT
301
ACCOUNT INFORMATION ACQUISITION UNIT
310
STORAGE MEDIUM
304
PAYMENT INFORMATION RECEPTION UNIT
305
NOTIFICATION UNIT
DEDICATED NW
B1
BANK

FIG. 11

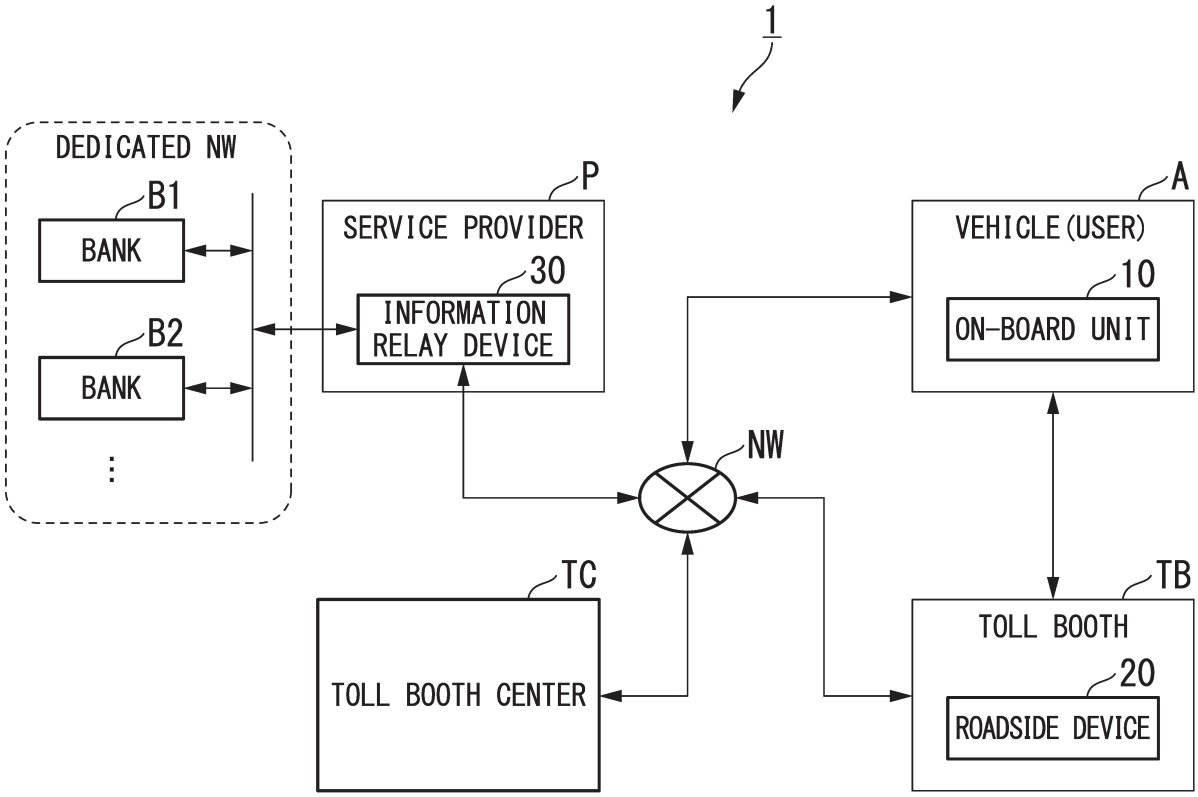

1
DEDICATED NW
B1
BANK
B2
BANK
P
SERVICE PROVIDER
30
INFORMATION RELAY DEVICE
A
VEHICLE (USER)
10
ON-BOARD UNIT
NW
TC
TOLL BOOTH CENTER
TB
TOLL BOOTH
20
ROADSIDE DEVICE

FIG. 12

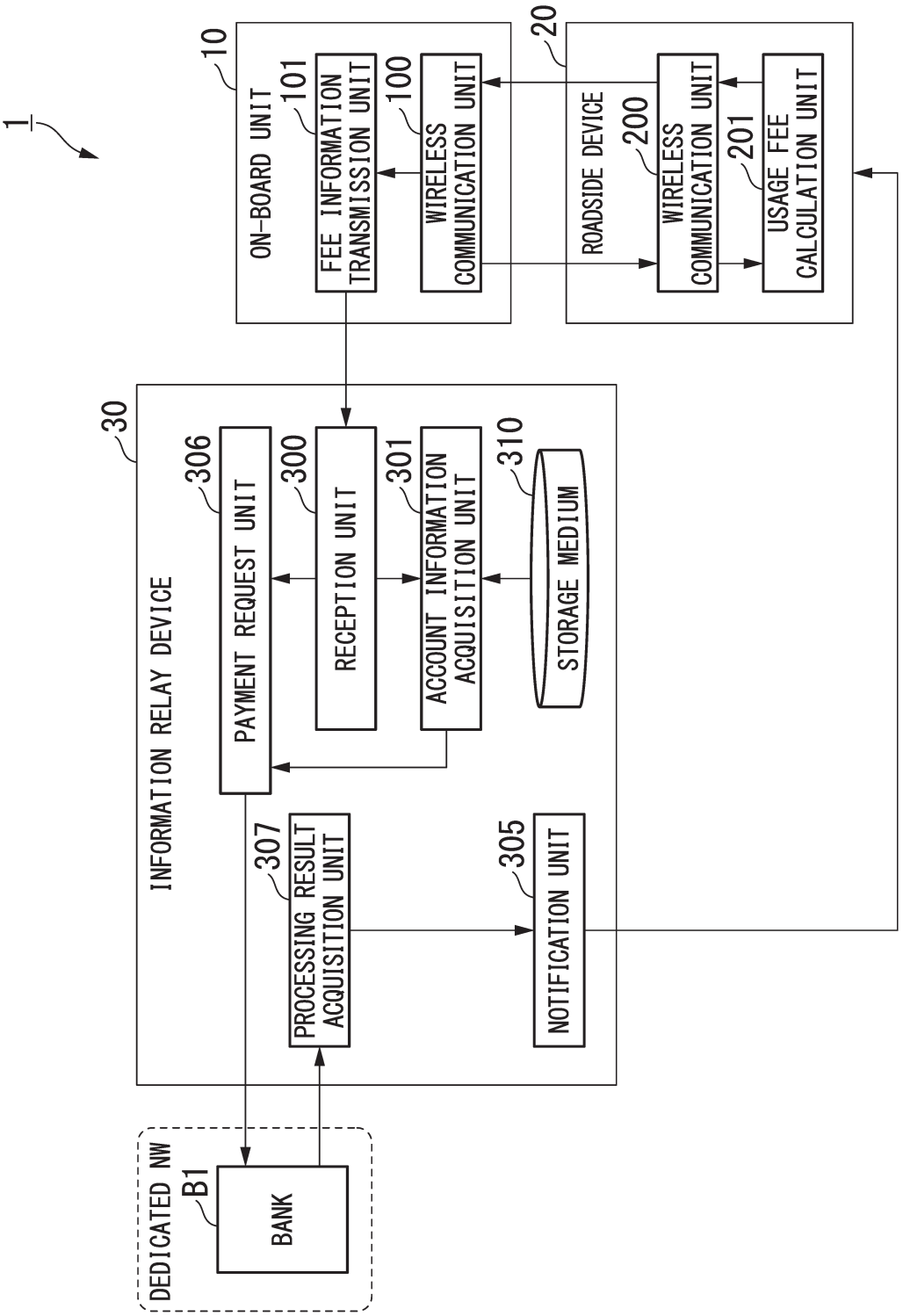

1
10
ON-BOARD UNIT
101
FEE INFORMATION TRANSMISSION UNIT
100
WIRELESS COMMUNICATION UNIT
20
ROADSIDE DEVICE
200
WIRELESS COMMUNICATION UNIT
201
USAGE FEE CALCULATION UNIT
30
INFORMATION RELAY DEVICE
306
PAYMENT REQUEST UNIT
300
RECEPTION UNIT
301
ACCOUNT INFORMATION ACQUISITION UNIT
310
STORAGE MEDIUM
307
PROCESSING RESULT ACQUISITION UNIT
305
NOTIFICATION UNIT
DEDICATED NW
B1
BANK

FIG. 13

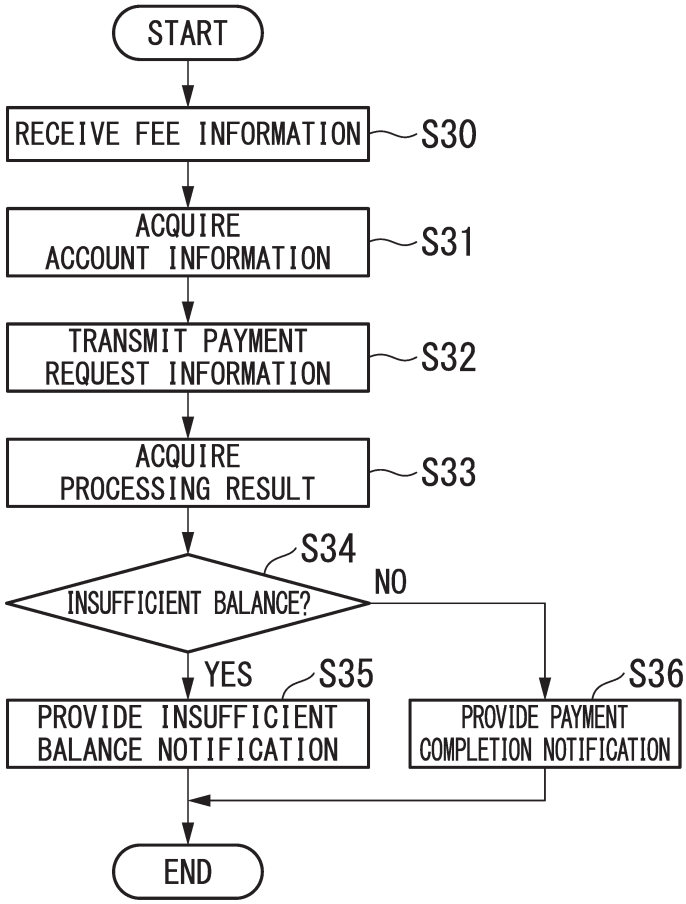
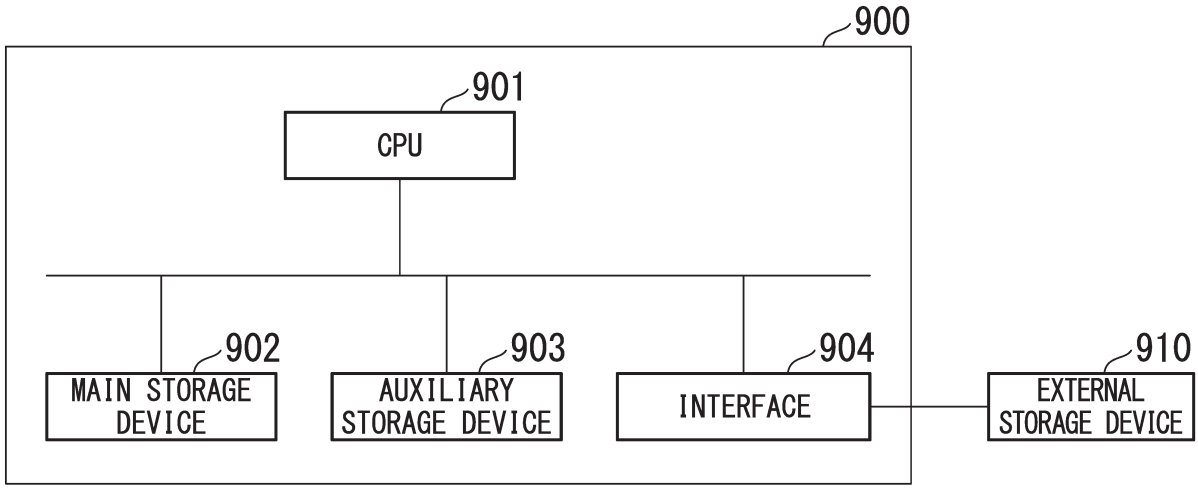

START
RECEIVE FEE INFORMATION
S30
ACQUIRE ACCOUNT INFORMATION
S31
TRANSMIT PAYMENT REQUEST INFORMATION
S32
ACQUIRE PROCESSING RESULT
S33
S34
INSUFFICIENT BALANCE?
NO
YES
S35
PROVIDE INSUFFICIENT BALANCE NOTIFICATION
S36
PROVIDE PAYMENT COMPLETION NOTIFICATION
END

FIG. 14


900
901
CPU
902
MAIN STORAGE DEVICE
903
AUXILIARY STORAGE DEVICE
904
INTERFACE
910
EXTERNAL STORAGE DEVICE