FIG. 1

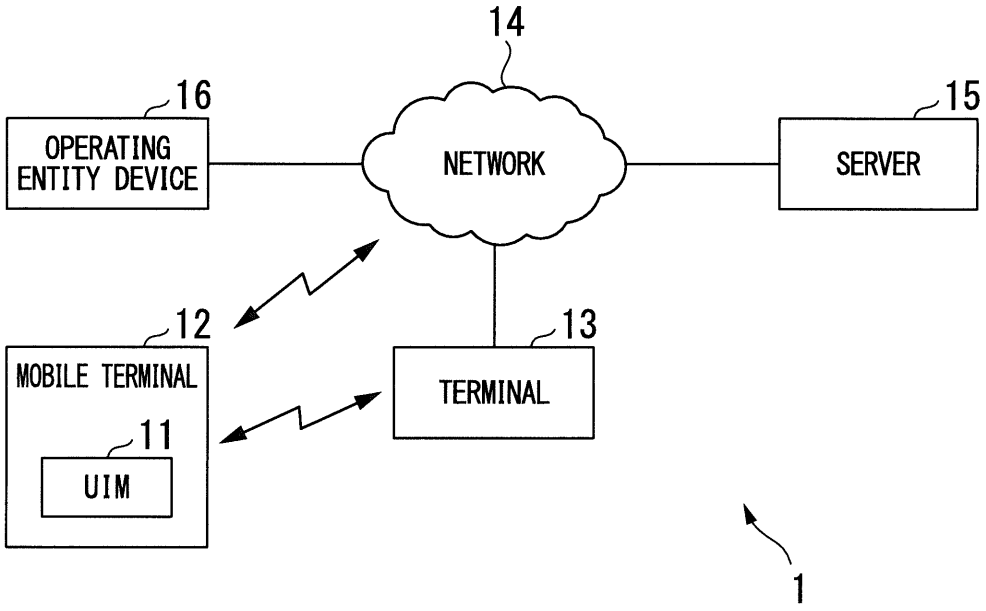

14
16
15
OPERATING ENTITY DEVICE
NETWORK
SERVER
12
13
MOBILE TERMINAL
TERMINAL
11
UIM
1

FIG. 2

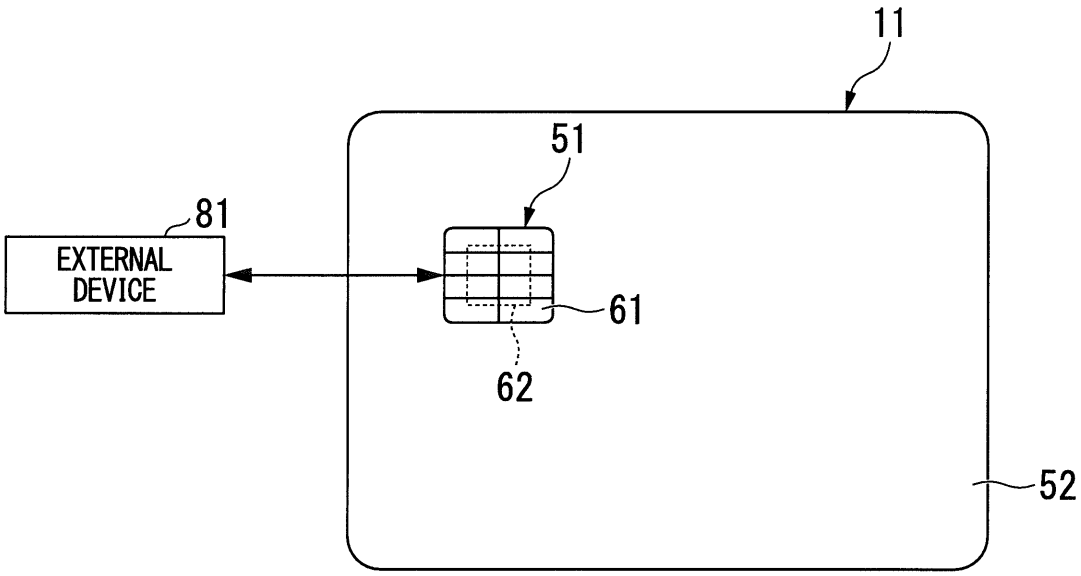

11
51
81
EXTERNAL DEVICE
61
62
52

FIG. 3

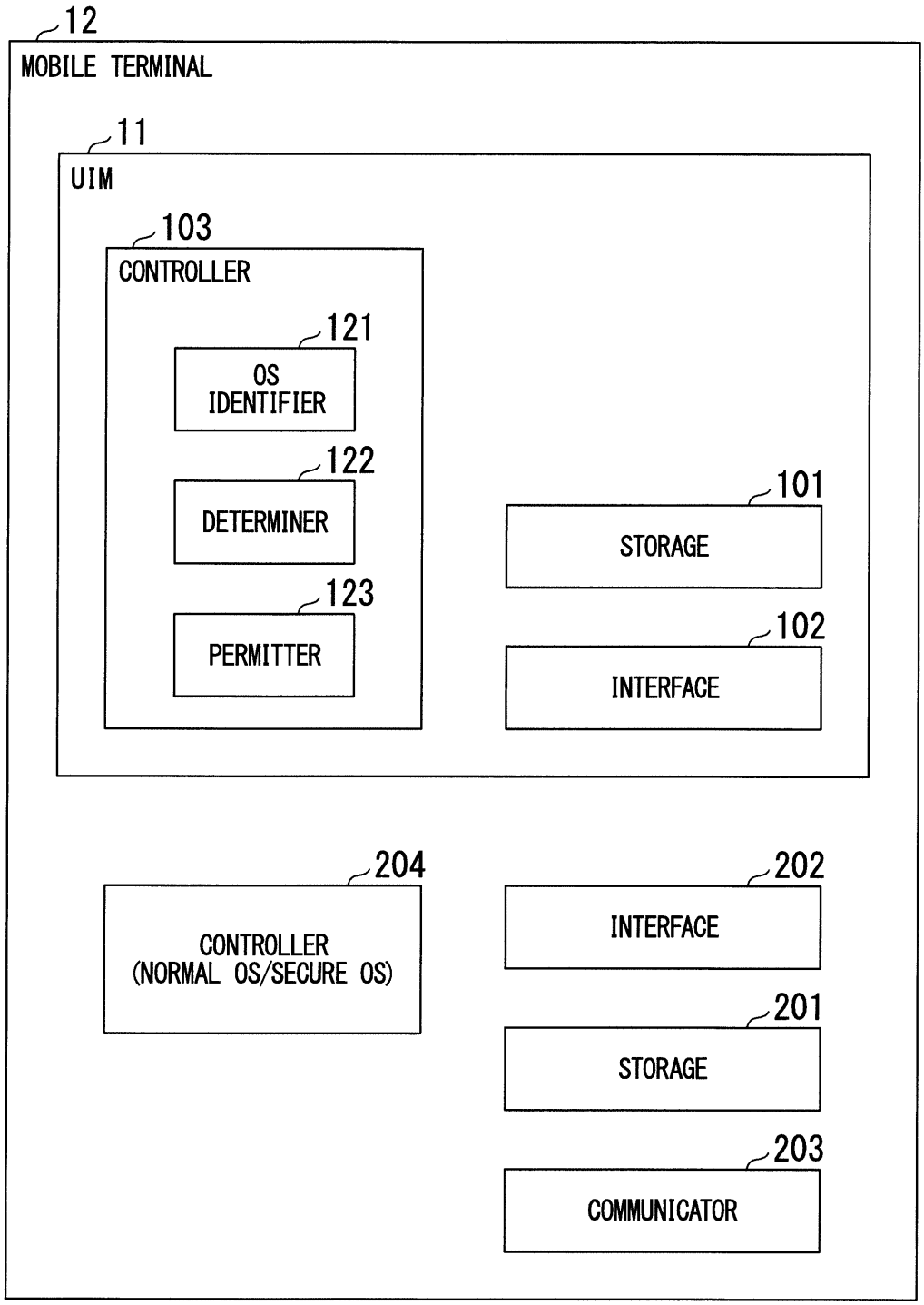

12
MOBILE TERMINAL
11
UIM
103
CONTROLLER
121
OS IDENTIFIER
122
DETERMINER
123
PERMITTER
101
STORAGE
102
INTERFACE
204
CONTROLLER (NORMAL OS/SECURE OS)
202
INTERFACE
201
STORAGE
203
COMMUNICATOR

FIG. 4

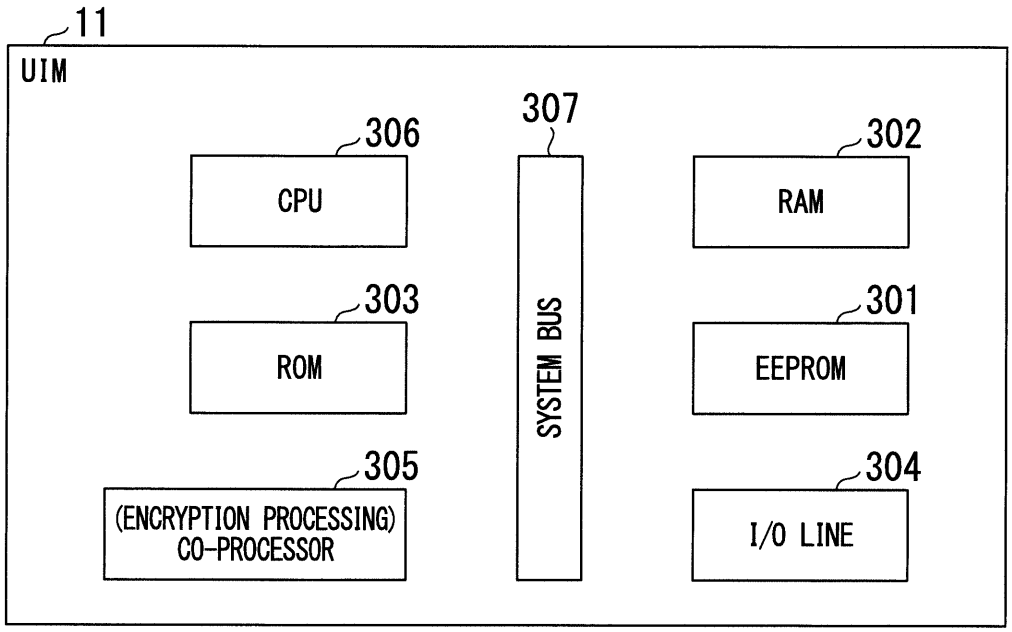

11
UIM
306
CPU
307
SYSTEM BUS
302
RAM
303
ROM
301
EEPROM
305
(ENCRYPTION PROCESSING)
CO-PROCESSOR
304
I/O LINE

FIG. 5

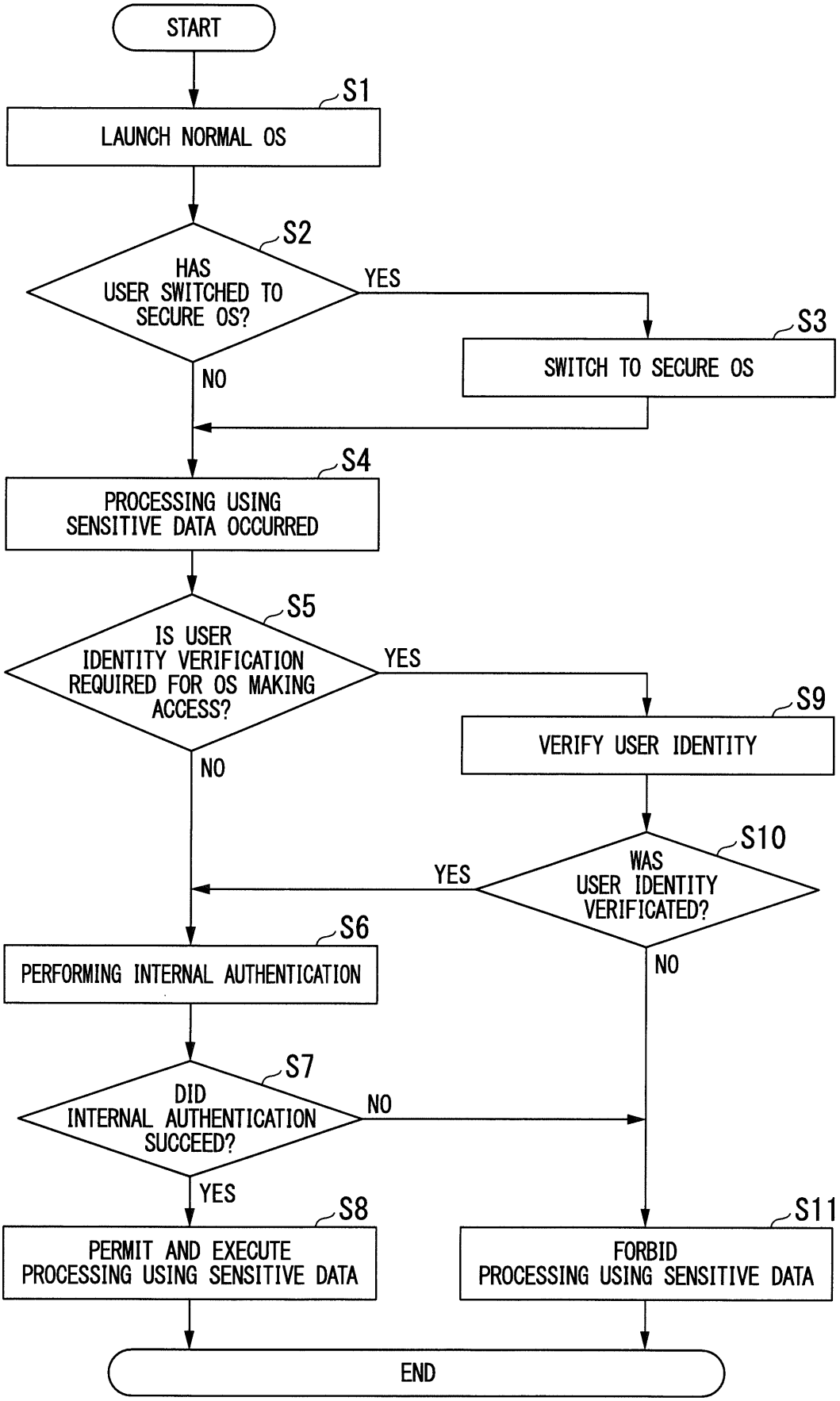

START
S1
LAUNCH NORMAL OS
S2
HAS USER SWITCHED TO SECURE OS?
YES
S3
SWITCH TO SECURE OS
NO
S4
PROCESSING USING SENSITIVE DATA OCCURRED
S5
IS USER IDENTITY VERIFICATION REQUIRED FOR OS MAKING ACCESS?
YES
S9
VERIFY USER IDENTITY
NO
S10
WAS USER IDENTITY VERIFICATED?
YES
NO
S6
PERFORMING INTERNAL AUTHENTICATION
S7
DID INTERNAL AUTHENTICATION SUCCEED?
NO
YES
S8
PERMIT AND EXECUTE PROCESSING USING SENSITIVE DATA
S11
FORBID PROCESSING USING SENSITIVE DATA
END

FIG. 6

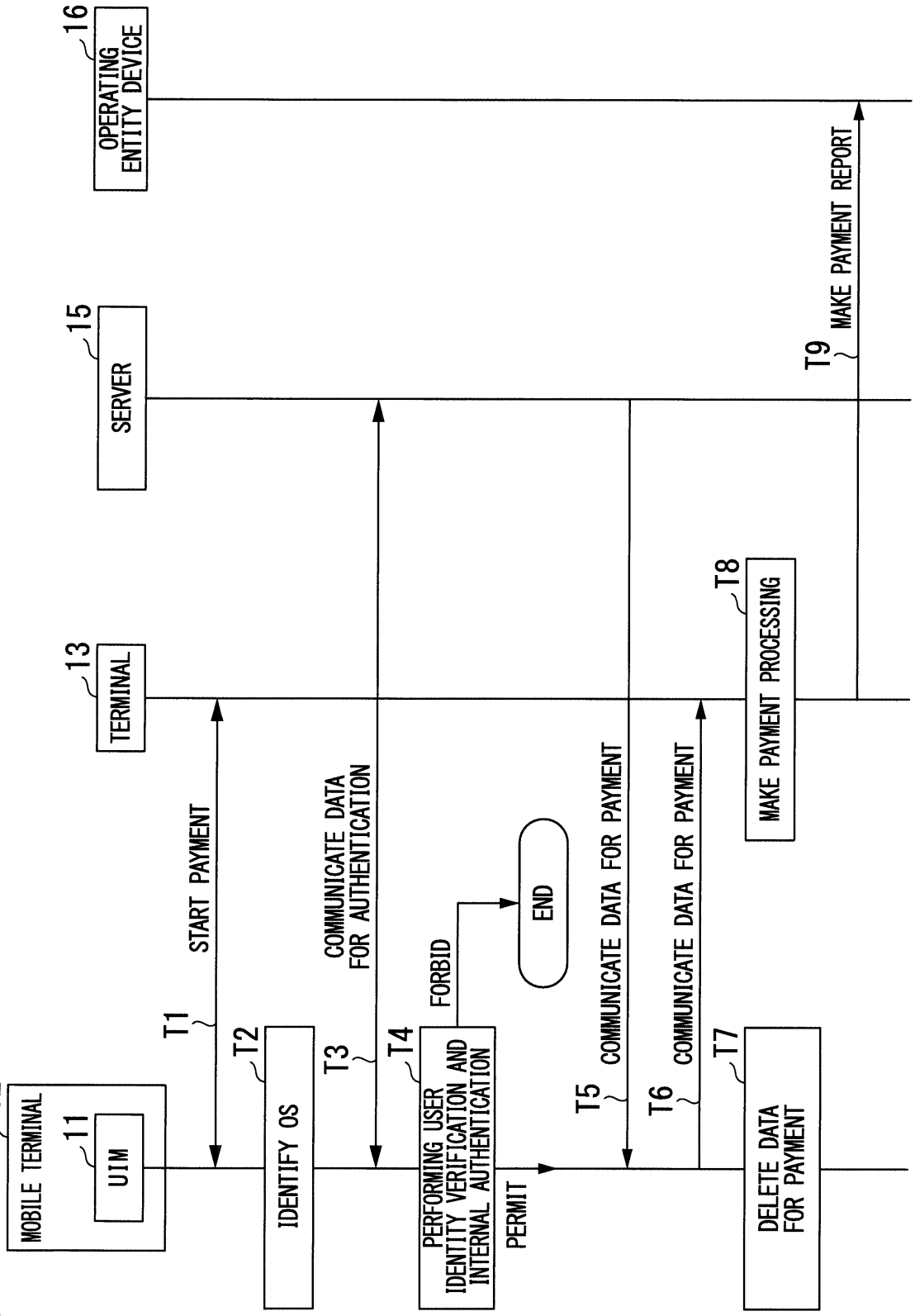
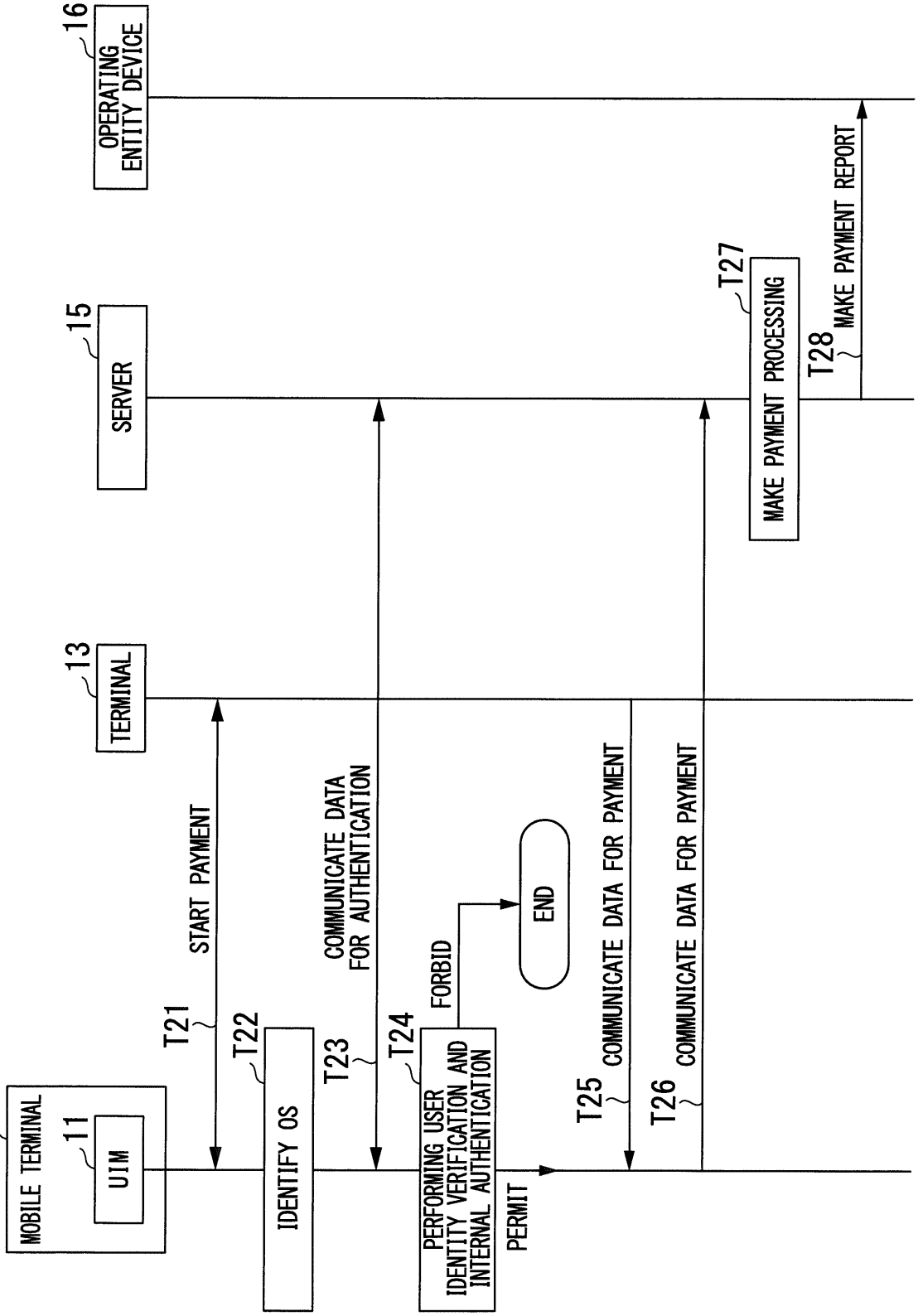

12
MOBILE TERMINAL
11
UIM
16
OPERATING ENTITY DEVICE
15
SERVER
13
TERMINAL
T1
START PAYMENT
T2
IDENTIFY OS
T3
COMMUNICATE DATA FOR AUTHENTICATION
T4
PERFORMING USER IDENTITY VERIFICATION AND INTERNAL AUTHENTICATION
FORBID
END
PERMIT
T5
COMMUNICATE DATA FOR PAYMENT
T6
COMMUNICATE DATA FOR PAYMENT
T7
DELETE DATA FOR PAYMENT
T8
MAKE PAYMENT PROCESSING
T9
MAKE PAYMENT REPORT

FIG. 7


16
OPERATING ENTITY DEVICE
15
SERVER
13
TERMINAL
12
MOBILE TERMINAL
11
UIM
START PAYMENT
T21
T22
IDENTIFY OS
COMMUNICATE DATA FOR AUTHENTICATION
T23
T24
PERFORMING USER IDENTITY VERIFICATION AND INTERNAL AUTHENTICATION
FORBID
END
PERMIT
T25
COMMUNICATE DATA FOR PAYMENT
T26
COMMUNICATE DATA FOR PAYMENT
T27
MAKE PAYMENT PROCESSING
T28
MAKE PAYMENT REPORT