FIG. 1

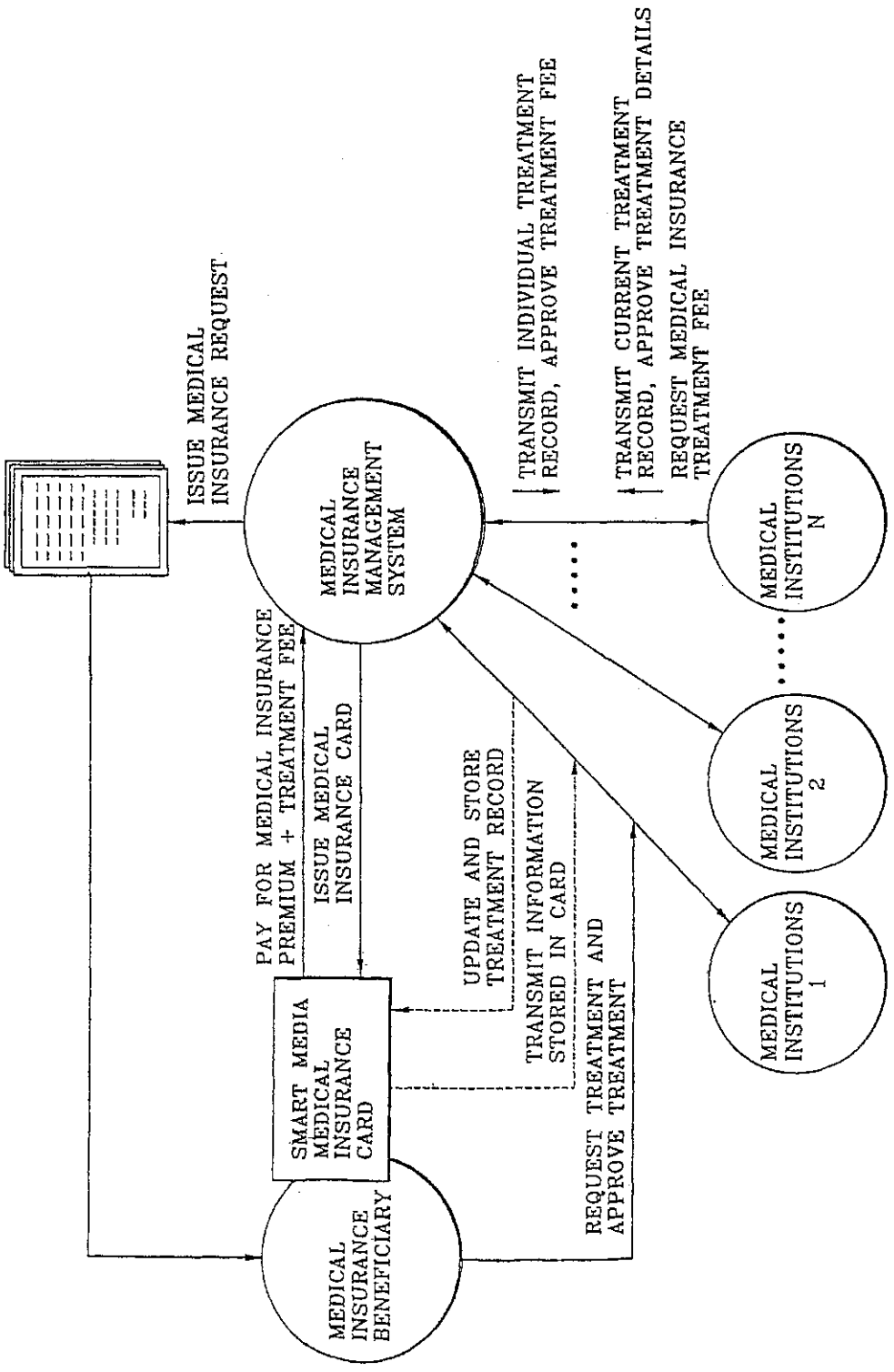

ISSUE MEDICAL INSURANCE REQUEST
MEDICAL INSURANCE MANAGEMENT SYSTEM
TRANSMIT INDIVIDUAL TREATMENT RECORD, APPROVE TREATMENT FEE
TRANSMIT CURRENT TREATMENT RECORD, APPROVE TREATMENT DETAILS
REQUEST MEDICAL INSURANCE TREATMENT FEE
MEDICAL INSTITUTIONS N
MEDICAL INSTITUTIONS 2
MEDICAL INSTITUTIONS 1
PAY FOR MEDICAL INSURANCE PREMIUM + TREATMENT FEE
ISSUE MEDICAL INSURANCE CARD
UPDATE AND STORE TREATMENT RECORD
TRANSMIT INFORMATION STORED IN CARD
REQUEST TREATMENT AND APPROVE TREATMENT
SMART MEDIA MEDICAL INSURANCE CARD
MEDICAL INSURANCE BENEFICIARY

FIG.2

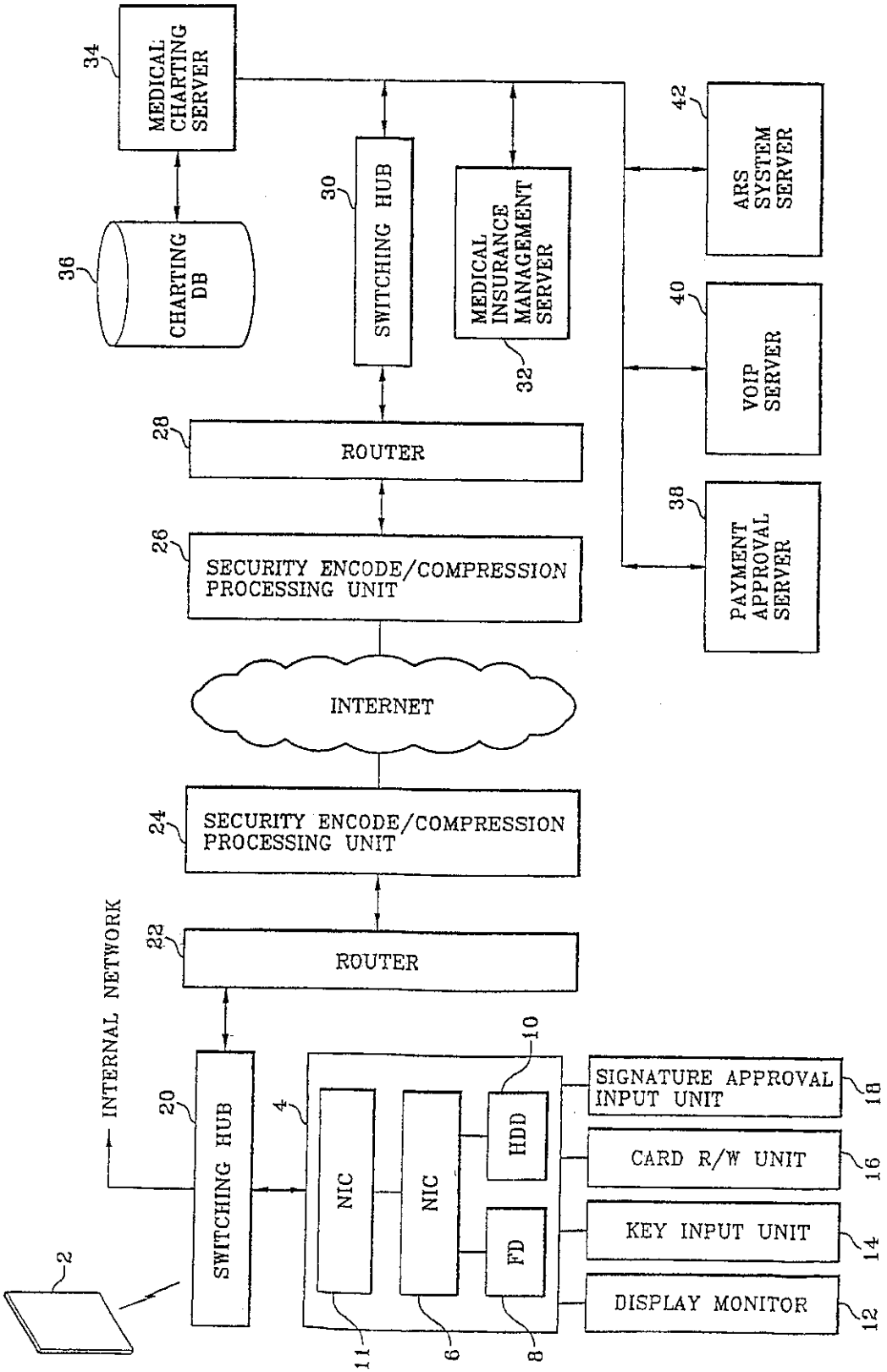

MEDICAL CHARTING SERVER
34
CHARTING DB
36
SWITCHING HUB
30
MEDICAL INSURANCE MANAGEMENT SERVER
32
ARS SYSTEM SERVER
42
VOIP SERVER
40
PAYMENT APPROVAL SERVER
38
ROUTER
28
SECURITY ENCODE/COMPRESSION PROCESSING UNIT
26
INTERNET
SECURITY ENCODE/COMPRESSION PROCESSING UNIT
24
ROUTER
22
INTERNAL NETWORK
SWITCHING HUB
20
4
NIC
NIC
HDD
FD
10
11
6
8
SIGNATURE APPROVAL INPUT UNIT
18
CARD R/W UNIT
16
KEY INPUT UNIT
14
DISPLAY MONITOR
12
2

FIG.3

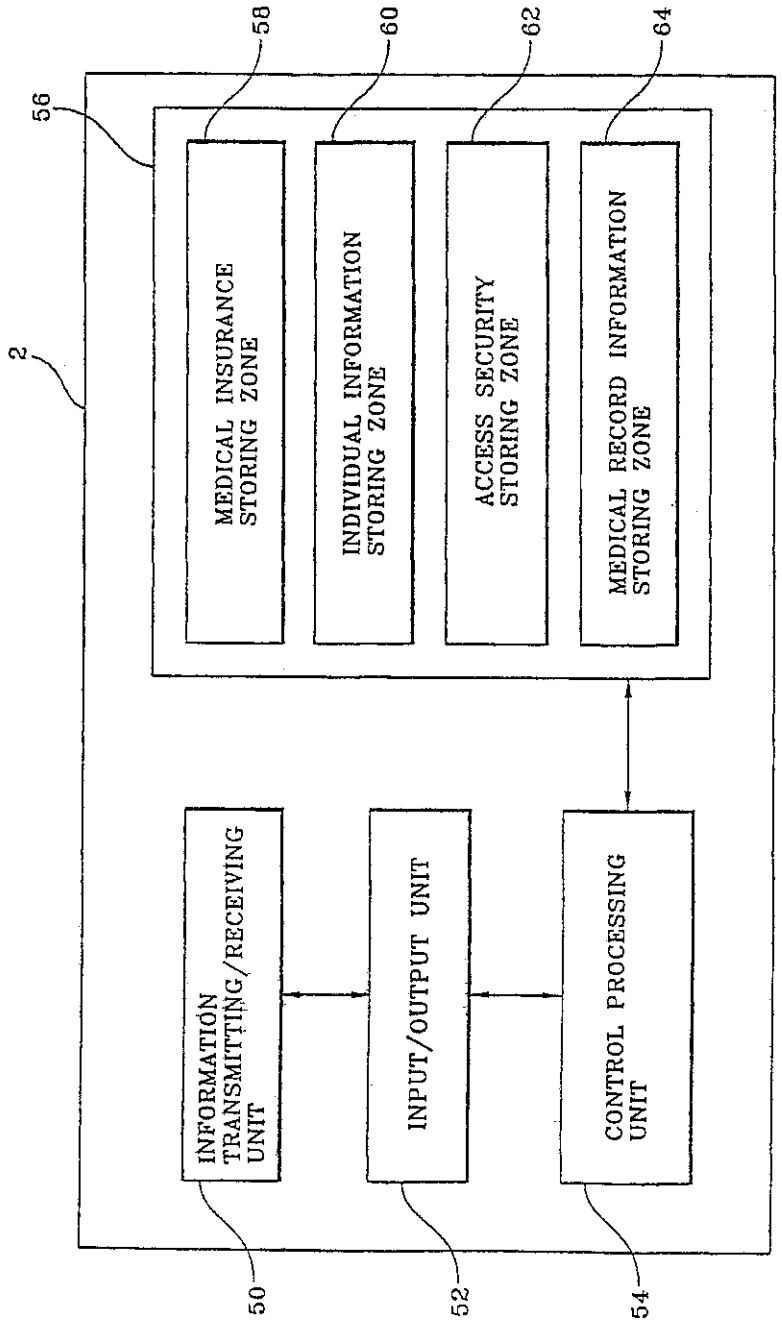

2
56
58
60
62
64
MEDICAL INSURANCE STORING ZONE
INDIVIDUAL INFORMATION STORING ZONE
ACCESS SECURITY STORING ZONE
MEDICAL RECORD INFORMATION STORING ZONE
INFORMATION TRANSMITTING/RECEIVING UNIT
INPUT/OUTPUT UNIT
CONTROL PROCESSING UNIT
50
52
54

FIG. 4

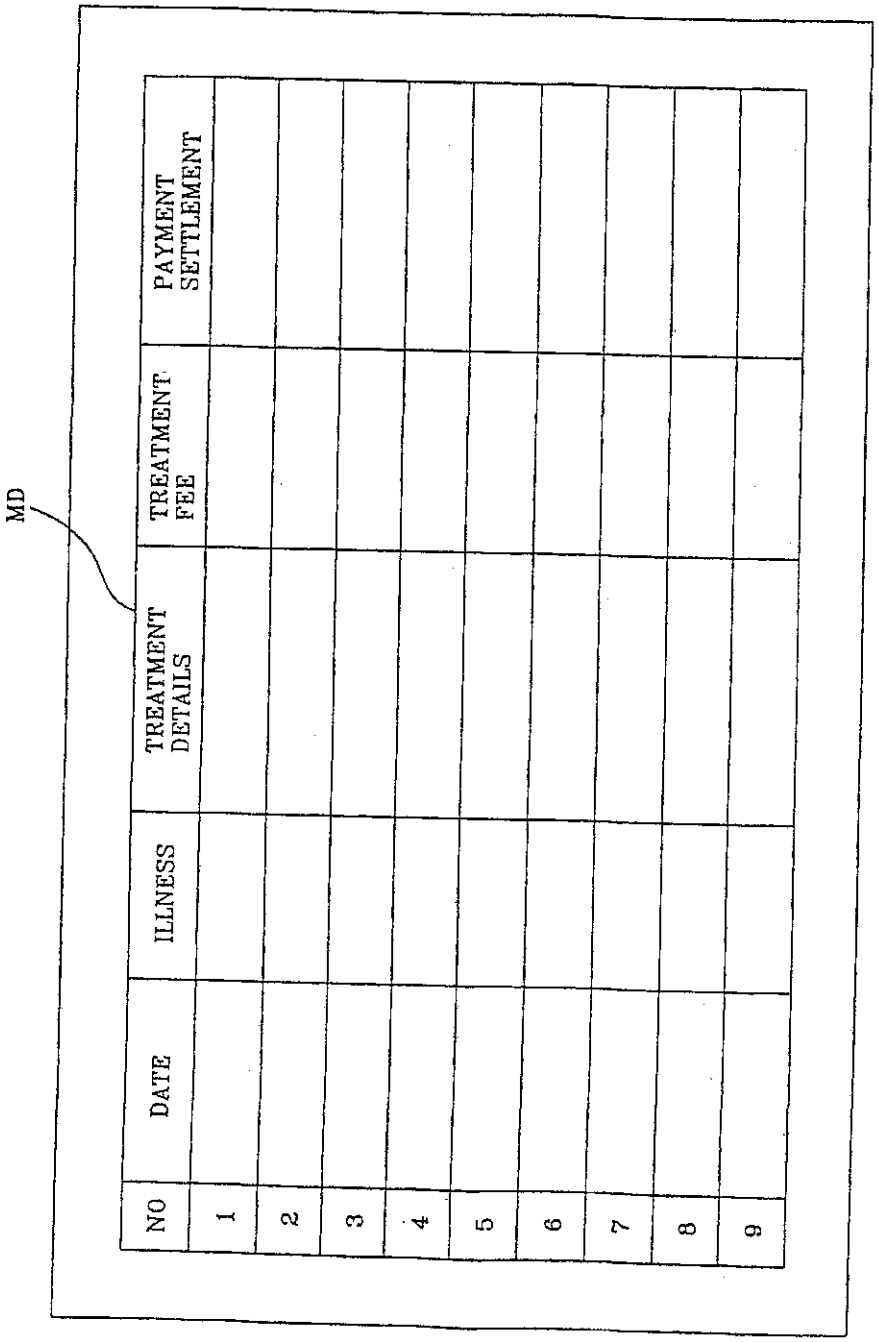

MD
NO
DATE
ILLNESS
TREATMENT DETAILS
TREATMENT FEE
PAYMENT SETTLEMENT
1
2
3
4
5
6
7
8
9

FIG.5

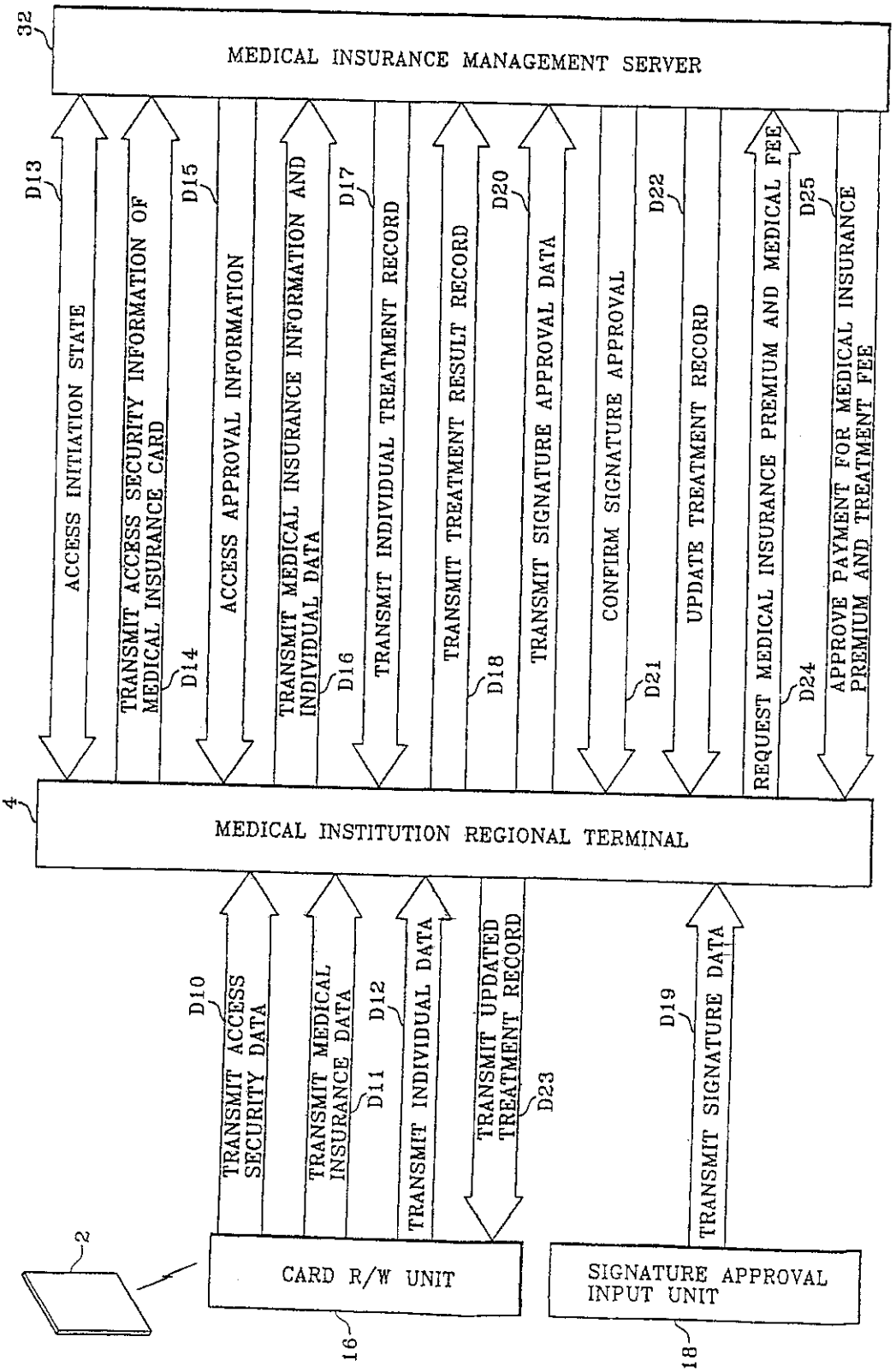

32
MEDICAL INSURANCE MANAGEMENT SERVER
D13
ACCESS INITIATION STATE
TRANSMIT ACCESS SECURITY INFORMATION OF MEDICAL INSURANCE CARD
D14
D15
ACCESS APPROVAL INFORMATION
TRANSMIT MEDICAL INSURANCE INFORMATION AND INDIVIDUAL DATA
D16
D17
TRANSMIT INDIVIDUAL TREATMENT RECORD
TRANSMIT TREATMENT RESULT RECORD
D18
D20
TRANSMIT SIGNATURE APPROVAL DATA
CONFIRM SIGNATURE APPROVAL
D21
D22
UPDATE TREATMENT RECORD
REQUEST MEDICAL INSURANCE PREMIUM AND MEDICAL FEE
D24
D25
APPROVE PAYMENT FOR MEDICAL INSURANCE PREMIUM AND TREATMENT FEE
4
MEDICAL INSTITUTION REGIONAL TERMINAL
D10
TRANSMIT ACCESS SECURITY DATA
TRANSMIT MEDICAL INSURANCE DATA
D11
D12
TRANSMIT INDIVIDUAL DATA
TRANSMIT UPDATED TREATMENT RECORD
D23
D19
TRANSMIT SIGNATURE DATA
2
CARD R/W UNIT
16
SIGNATURE APPROVAL INPUT UNIT
18

FIG. 6

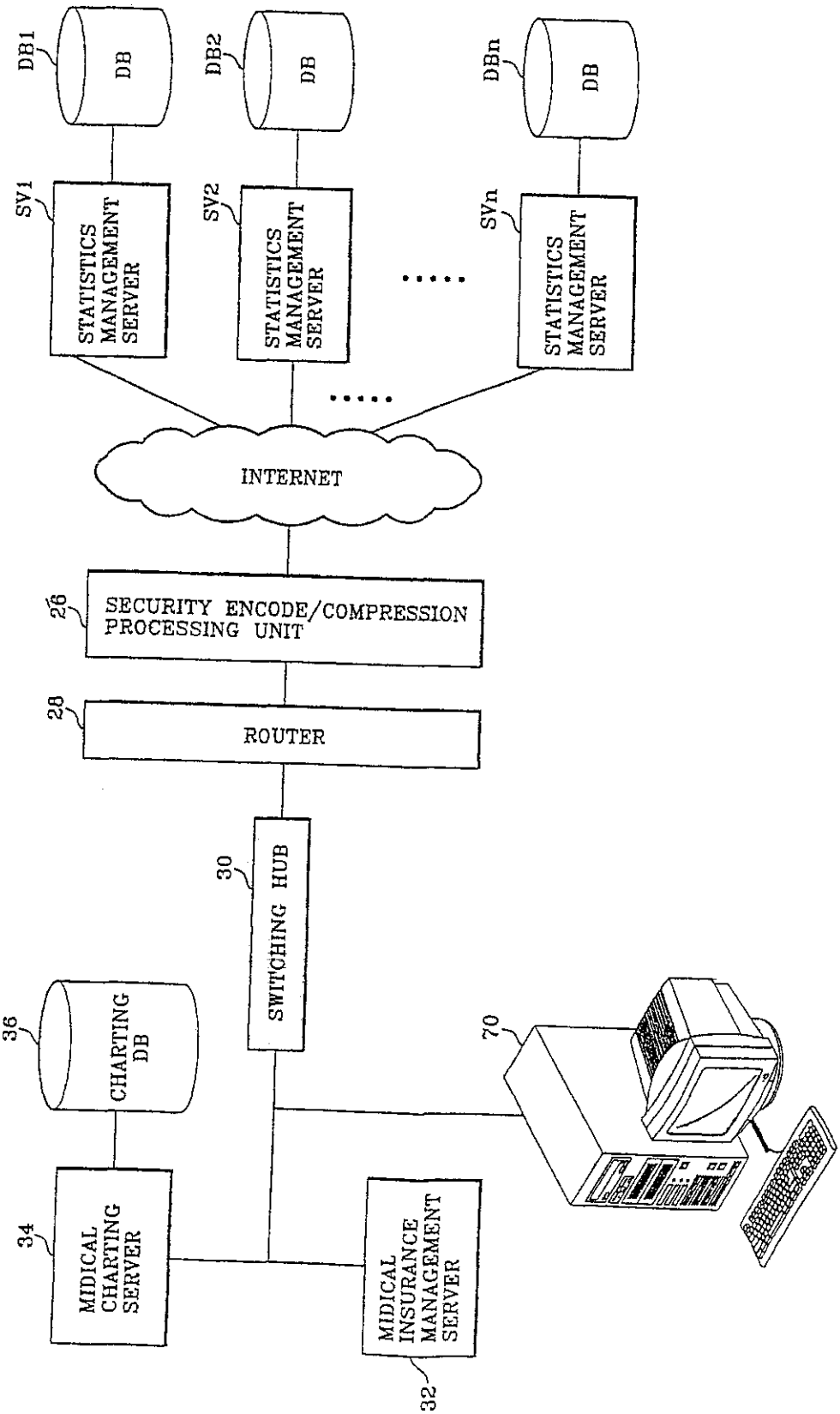

DB1
DB
DB2
DB
DBn
DB
SV1
STATISTICS MANAGEMENT SERVER
SV2
STATISTICS MANAGEMENT SERVER
SVn
STATISTICS MANAGEMENT SERVER
INTERNET
26
SECURITY ENCODE/COMPRESSION PROCESSING UNIT
28
ROUTER
30
SWITCHING HUB
36
CHARTING DB
34
MIDICAL CHARTING SERVER
MIDICAL INSURANCE MANAGEMENT SERVER
32
70

FIG.7

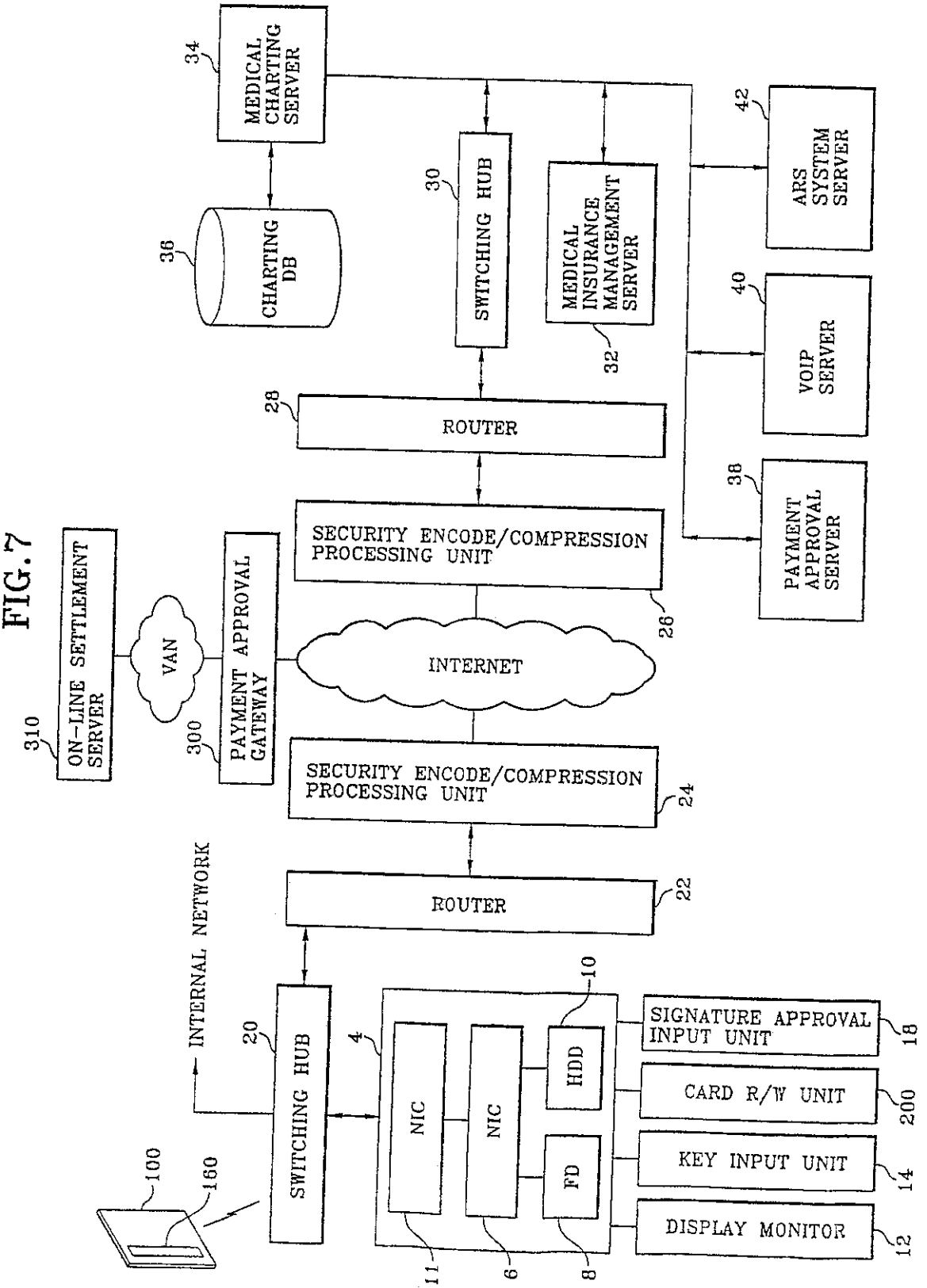

MEDICAL CHARTING SERVER
34
CHARTING DB
36
SWITCHING HUB
30
MEDICAL INSURANCE MANAGEMENT SERVER
32
ARS SYSTEM SERVER
42
VOIP SERVER
40
PAYMENT APPROVAL SERVER
38
ROUTER
28
SECURITY ENCODE/COMPRESSION PROCESSING UNIT
26
INTERNET
VAN
ON-LINE SETTLEMENT SERVER
310
PAYMENT APPROVAL GATEWAY
300
SECURITY ENCODE/COMPRESSION PROCESSING UNIT
24
ROUTER
22
INTERNAL NETWORK
SWITCHING HUB
20
4
NIC
NIC
HDD
FD
10
11
6
8
SIGNATURE APPROVAL INPUT UNIT
18
CARD R/W UNIT
200
KEY INPUT UNIT
14
DISPLAY MONITOR
12
100
160

FIG.8

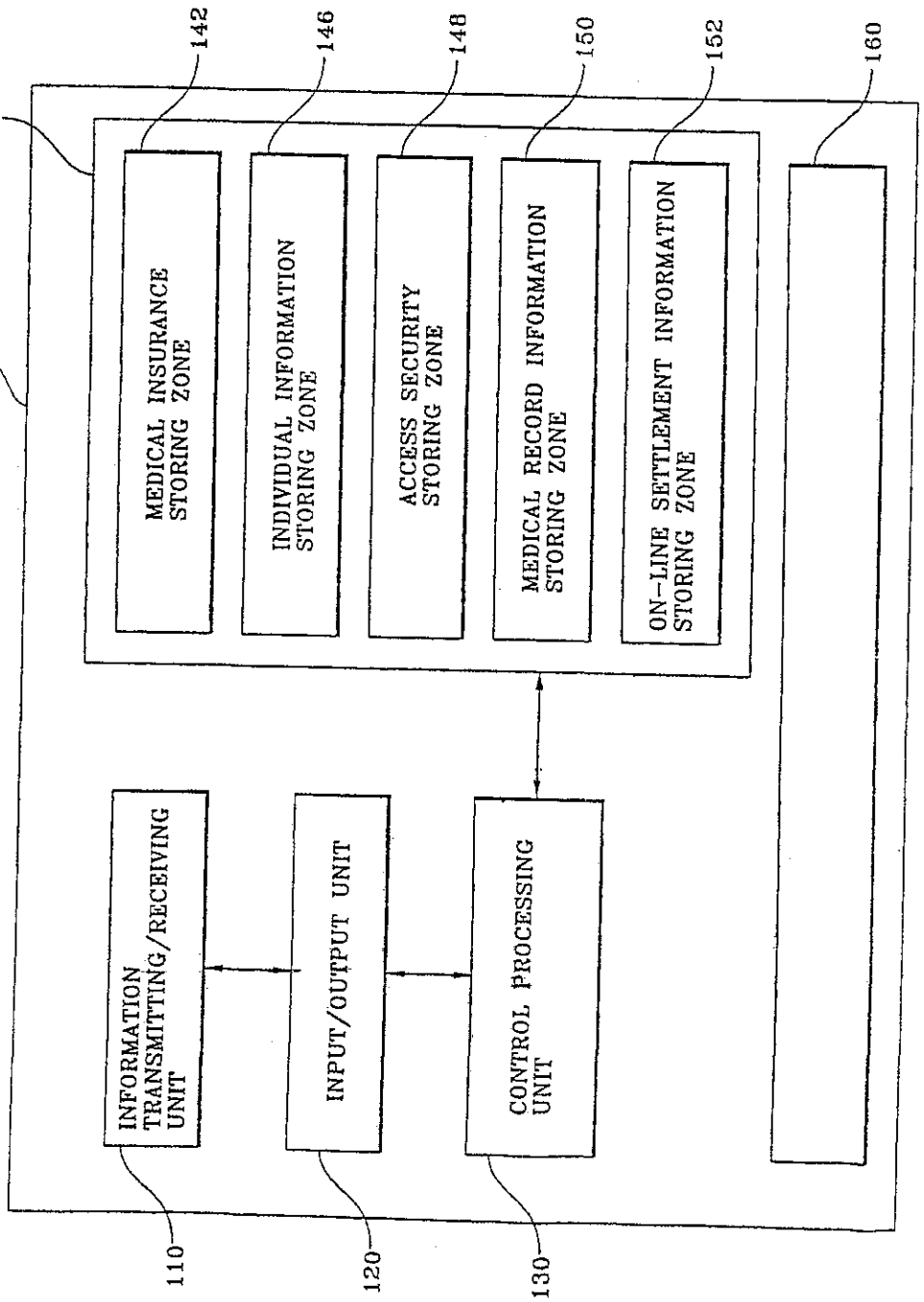
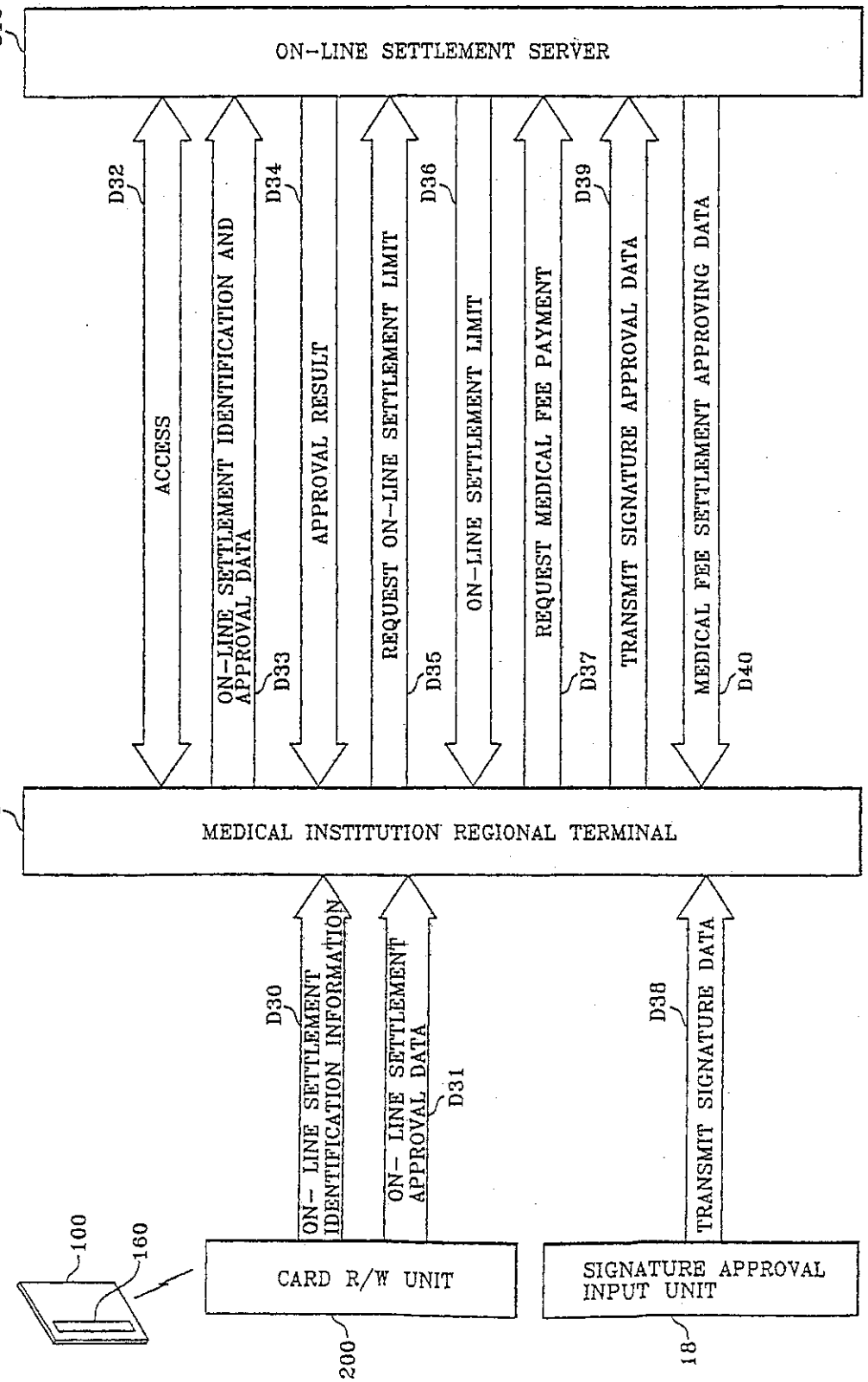

100
140
142
146
148
150
152
160
MEDICAL INSURANCE STORING ZONE
INDIVIDUAL INFORMATION STORING ZONE
ACCESS SECURITY STORING ZONE
MEDICAL RECORD INFORMATION STORING ZONE
ON-LINE SETTLEMENT INFORMATION STORING ZONE
INFORMATION TRANSMITTING/RECEIVING UNIT
INPUT/OUTPUT UNIT
CONTROL PROCESSING UNIT
110
120
130

FIG.9


310
ON-LINE SETTLEMENT SERVER
D32
ACCESS
ON-LINE SETTLEMENT IDENTIFICATION AND APPROVAL DATA
D33
D34
APPROVAL RESULT
REQUEST ON-LINE SETTLEMENT LIMIT
D35
D36
ON-LINE SETTLEMENT LIMIT
REQUEST MEDICAL FEE PAYMENT
D37
D39
TRANSMIT SIGNATURE APPROVAL DATA
MEDICAL FEE SETTLEMENT APPROVING DATA
D40
4
MEDICAL INSTITUTION REGIONAL TERMINAL
D30
ON- LINE SETTLEMENT IDENTIFICATION INFORMATION
ON- LINE SETTLEMENT APPROVAL DATA
D31
D38
TRANSMIT SIGNATURE DATA
100
160
CARD R/W UNIT
200
SIGNATURE APPROVAL INPUT UNIT
18