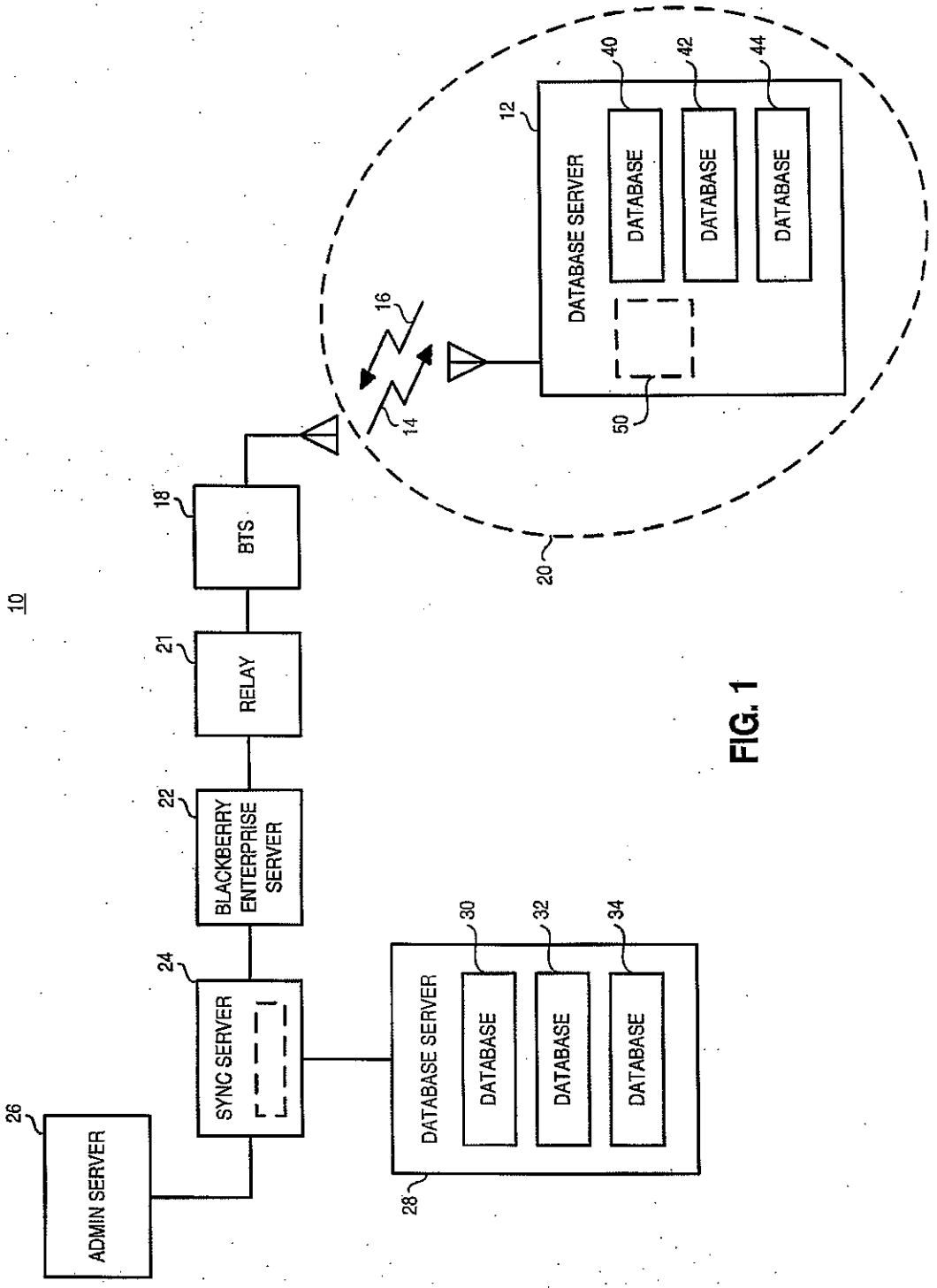

10
ADMIN SERVER
26
SYNC SERVER
24
BLACKBERRY ENTERPRISE SERVER
22
RELAY
21
BTS
18
DATABASE SERVER
28
DATABASE
30
DATABASE
32
DATABASE
34
16
14
DATABASE SERVER
12
DATABASE
40
DATABASE
42
DATABASE
44
50
20

FIG. 1

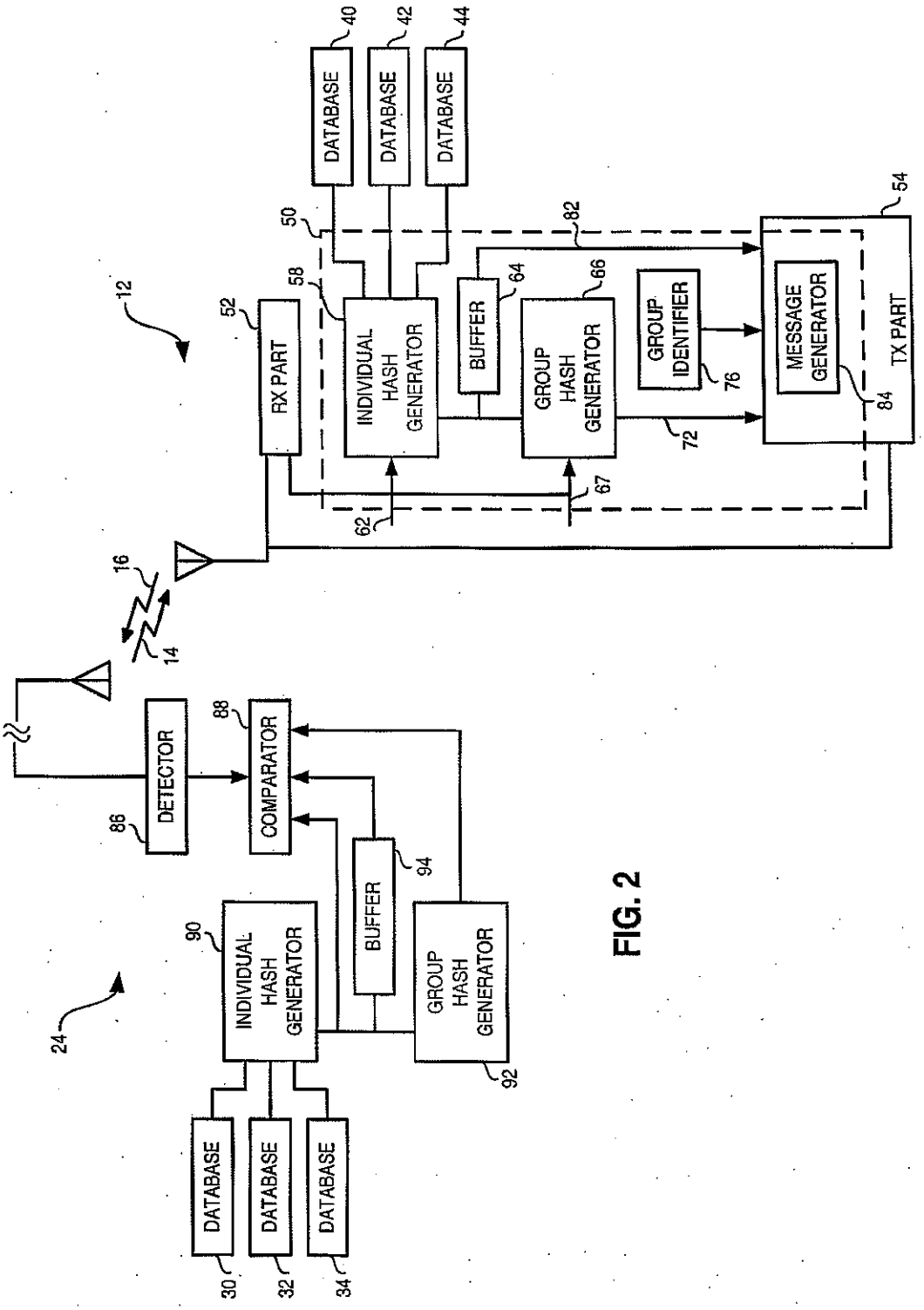

DATABASE
40
DATABASE
42
DATABASE
44
50
82
54
12
52
58
RX PART
INDIVIDUAL HASH GENERATOR
BUFFER
64
66
GROUP HASH GENERATOR
GROUP IDENTIFIER
76
MESSAGE GENERATOR
84
TX PART
72
62
67
16
14
DETECTOR
86
88
COMPARATOR
94
BUFFER
90
INDIVIDUAL HASH GENERATOR
GROUP HASH GENERATOR
92
24
DATABASE
30
DATABASE
32
DATABASE
34

FIG. 2

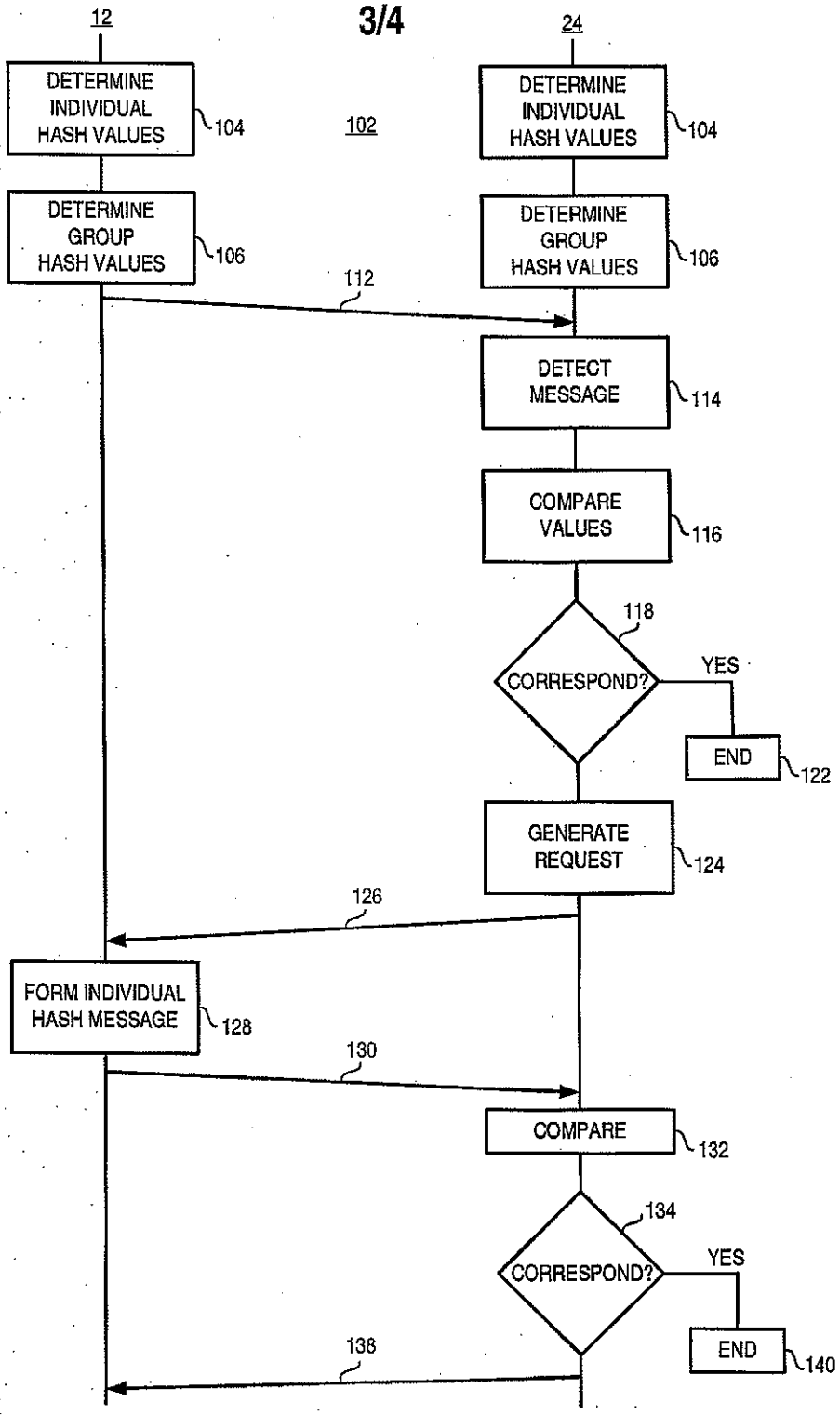

12
24
DETERMINE INDIVIDUAL HASH VALUES
104
102
DETERMINE INDIVIDUAL HASH VALUES
104
DETERMINE GROUP HASH VALUES
106
DETERMINE GROUP HASH VALUES
106
112
DETECT MESSAGE
114
COMPARE VALUES
116
118
CORRESPOND?
YES
END
122
GENERATE REQUEST
124
126
FORM INDIVIDUAL HASH MESSAGE
128
130
COMPARE
132
134
CORRESPOND?
YES
END
140
138

FIG. 3

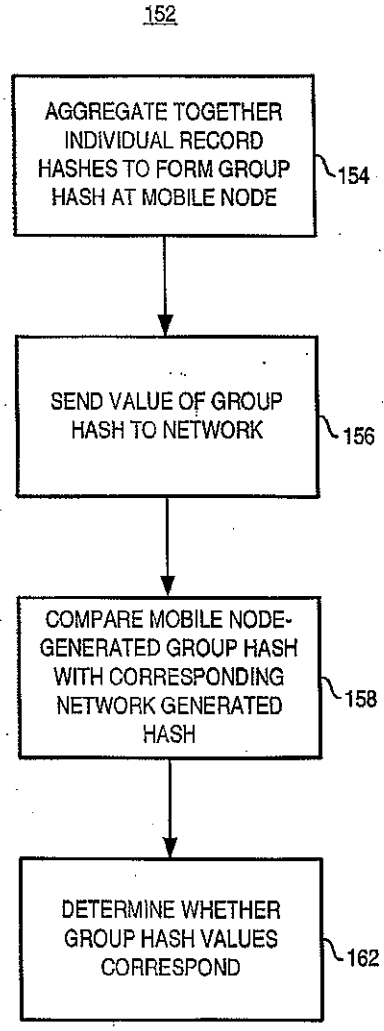

152
AGGREGATE TOGETHER INDIVIDUAL RECORD HASHES TO FORM GROUP HASH AT MOBILE NODE
154
SEND VALUE OF GROUP HASH TO NETWORK
156
COMPARE MOBILE NODE-GENERATED GROUP HASH WITH CORRESPONDING NETWORK GENERATED HASH
158
DETERMINE WHETHER GROUP HASH VALUES CORRESPOND
162

FIG. 4