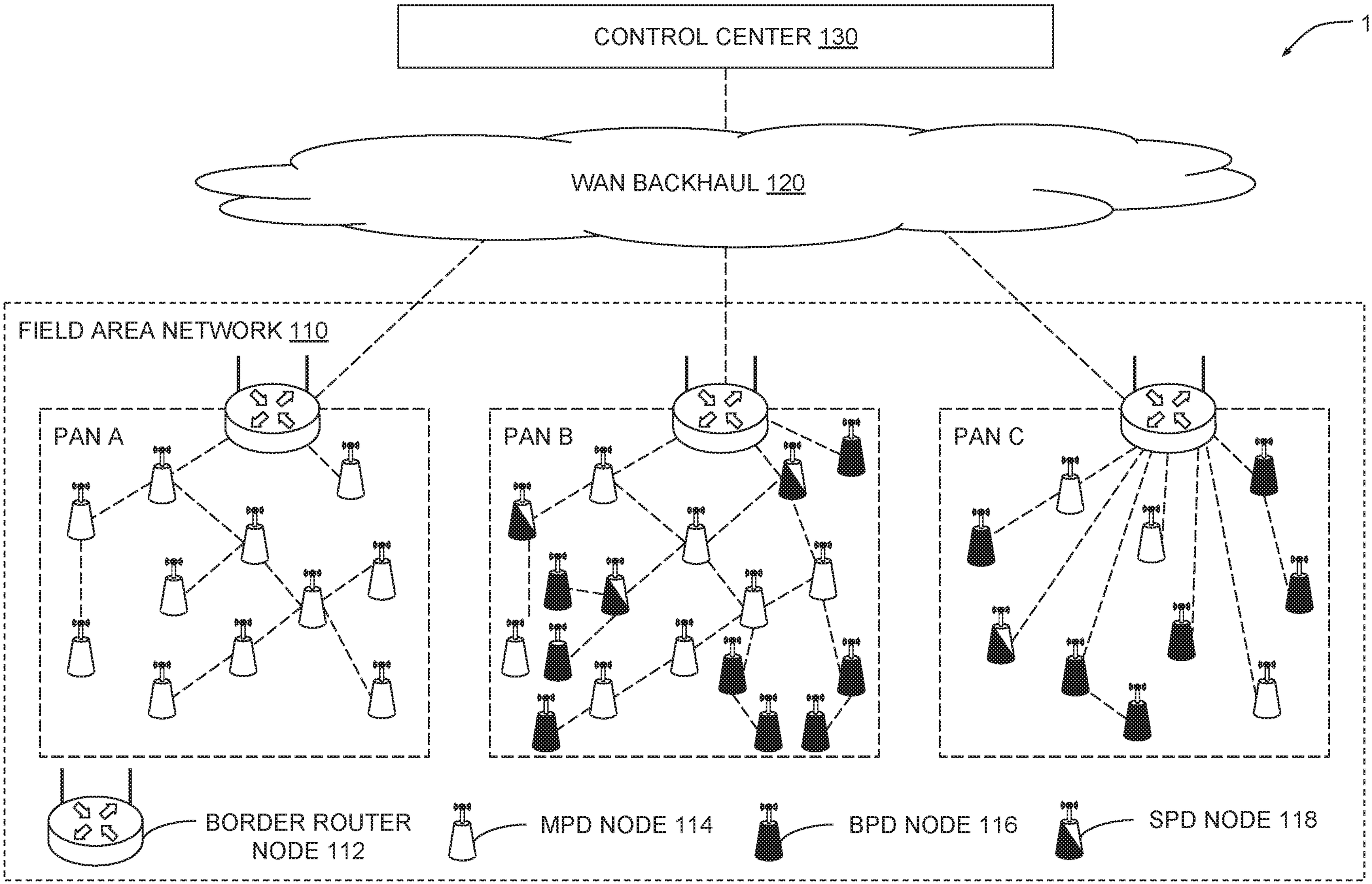
100
CONTROL CENTER 130
WAN BACKHAUL 120
FIELD AREA NETWORK 110
PAN A
PAN B
PAN C
BORDER ROUTER NODE 112
MPD NODE 114
BPD NODE 116
SPD NODE 118

FIG. 1

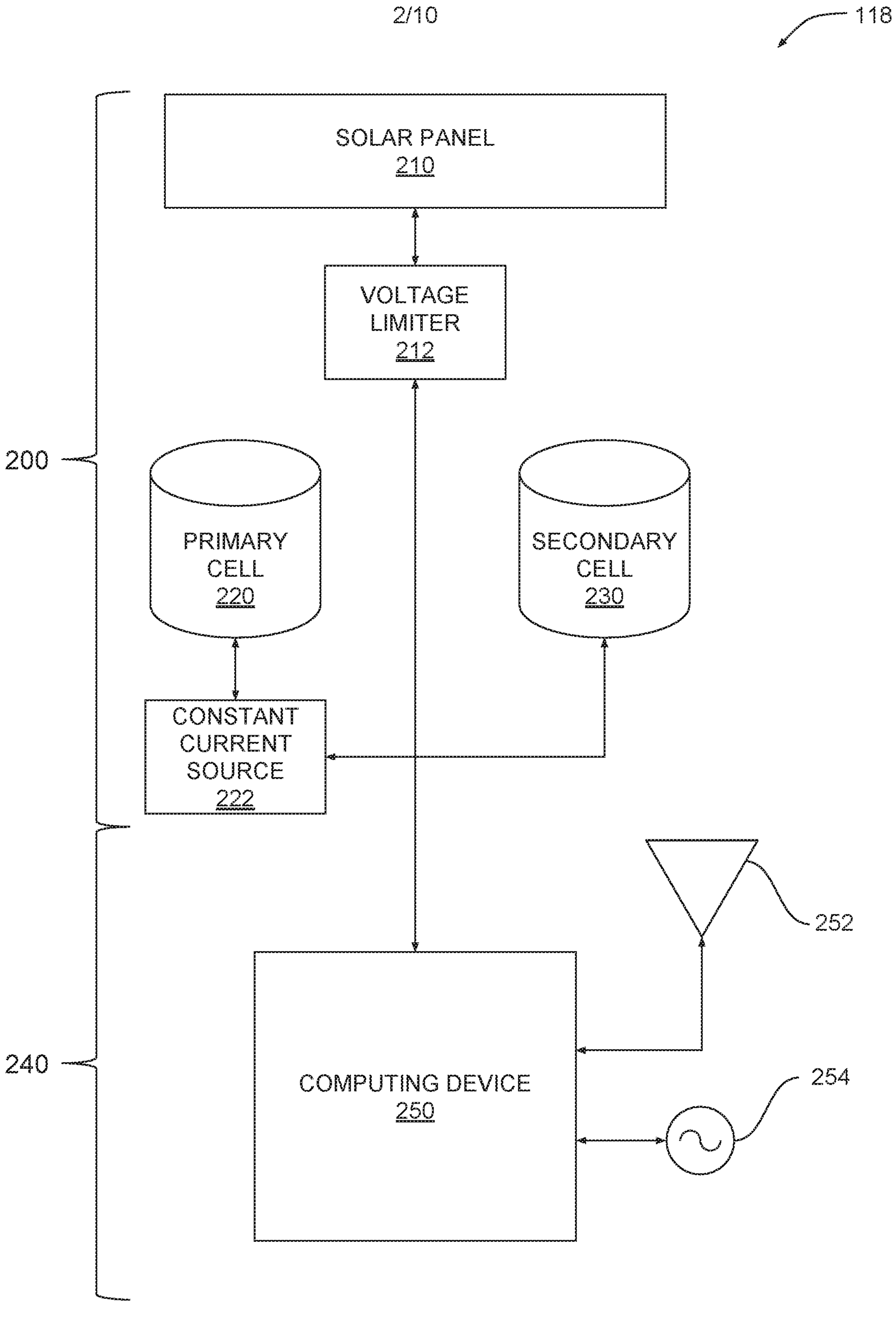
118
SOLAR PANEL
210
VOLTAGE
LIMITER
212
200
PRIMARY
CELL
220
SECONDARY
CELL
230
CONSTANT
CURRENT
SOURCE
222
252
240
COMPUTING DEVICE
250
254

FIG. 2

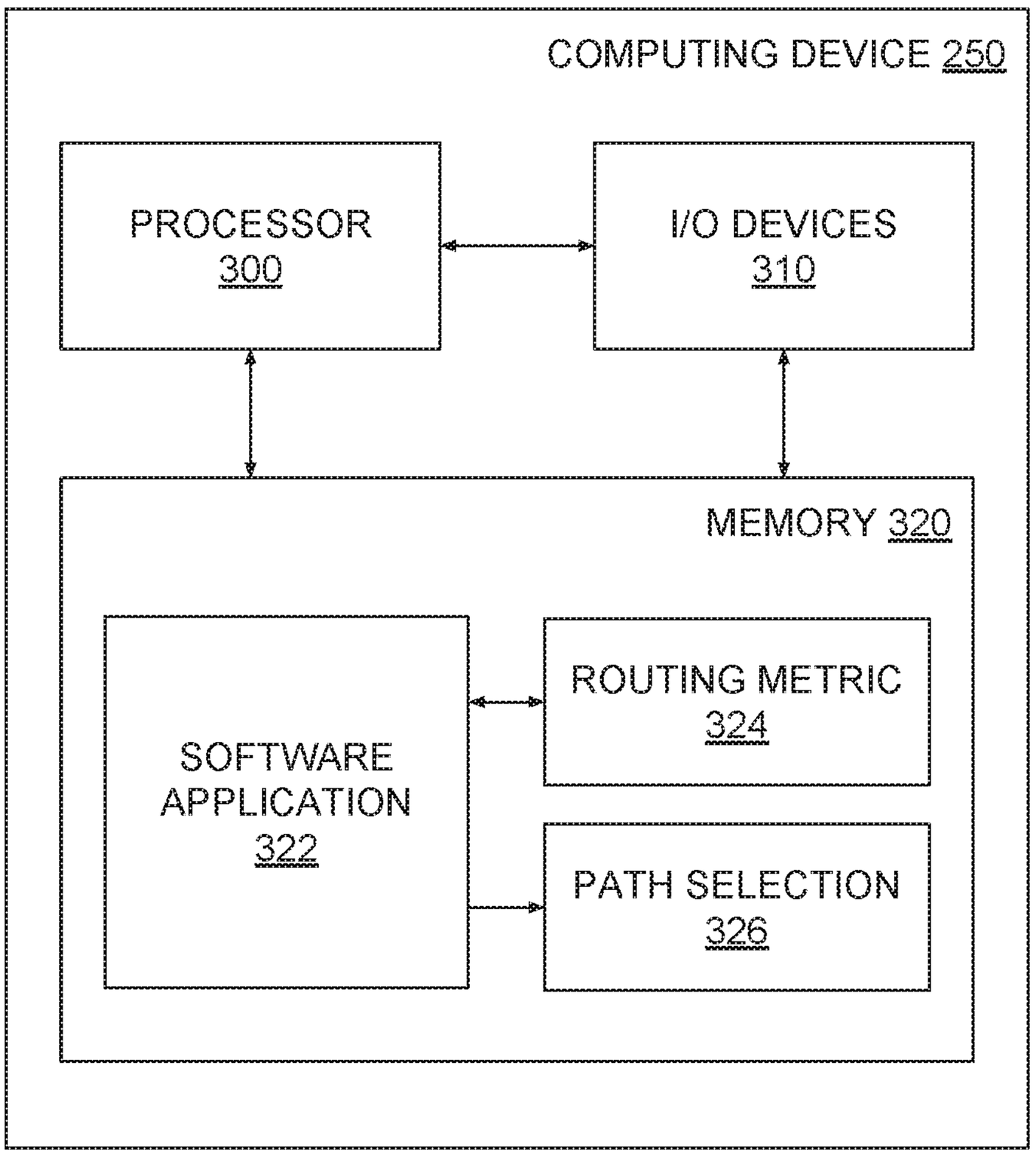
COMPUTING DEVICE 250
PROCESSOR 300
I/O DEVICES 310
MEMORY 320
SOFTWARE APPLICATION 322
ROUTING METRIC 324
PATH SELECTION 326

FIG. 3

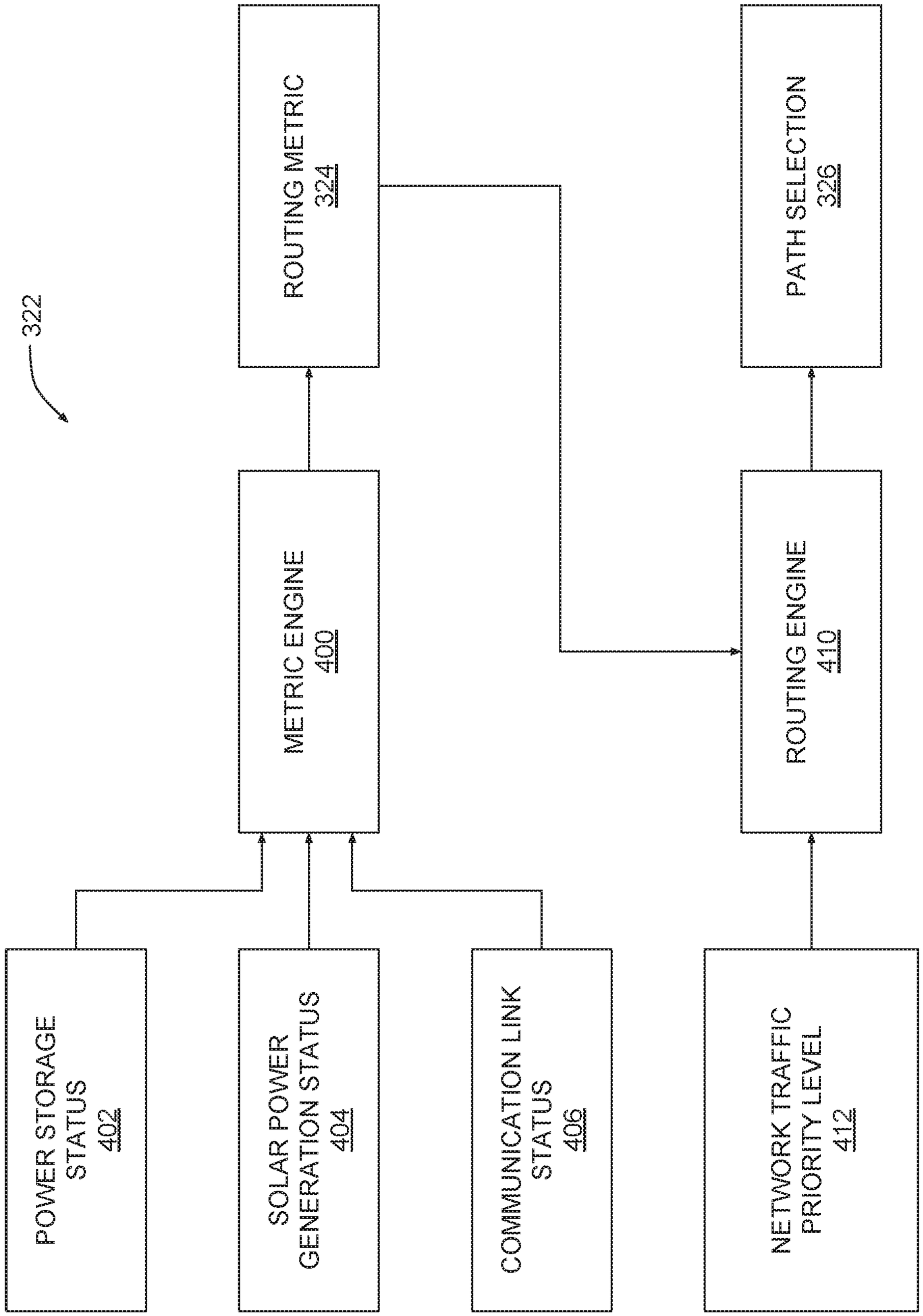
322
POWER STORAGE STATUS 402
SOLAR POWER GENERATION STATUS 404
COMMUNICATION LINK STATUS 406
NETWORK TRAFFIC PRIORITY LEVEL 412
METRIC ENGINE 400
ROUTING METRIC 324
ROUTING ENGINE 410
PATH SELECTION 326

FIG. 4

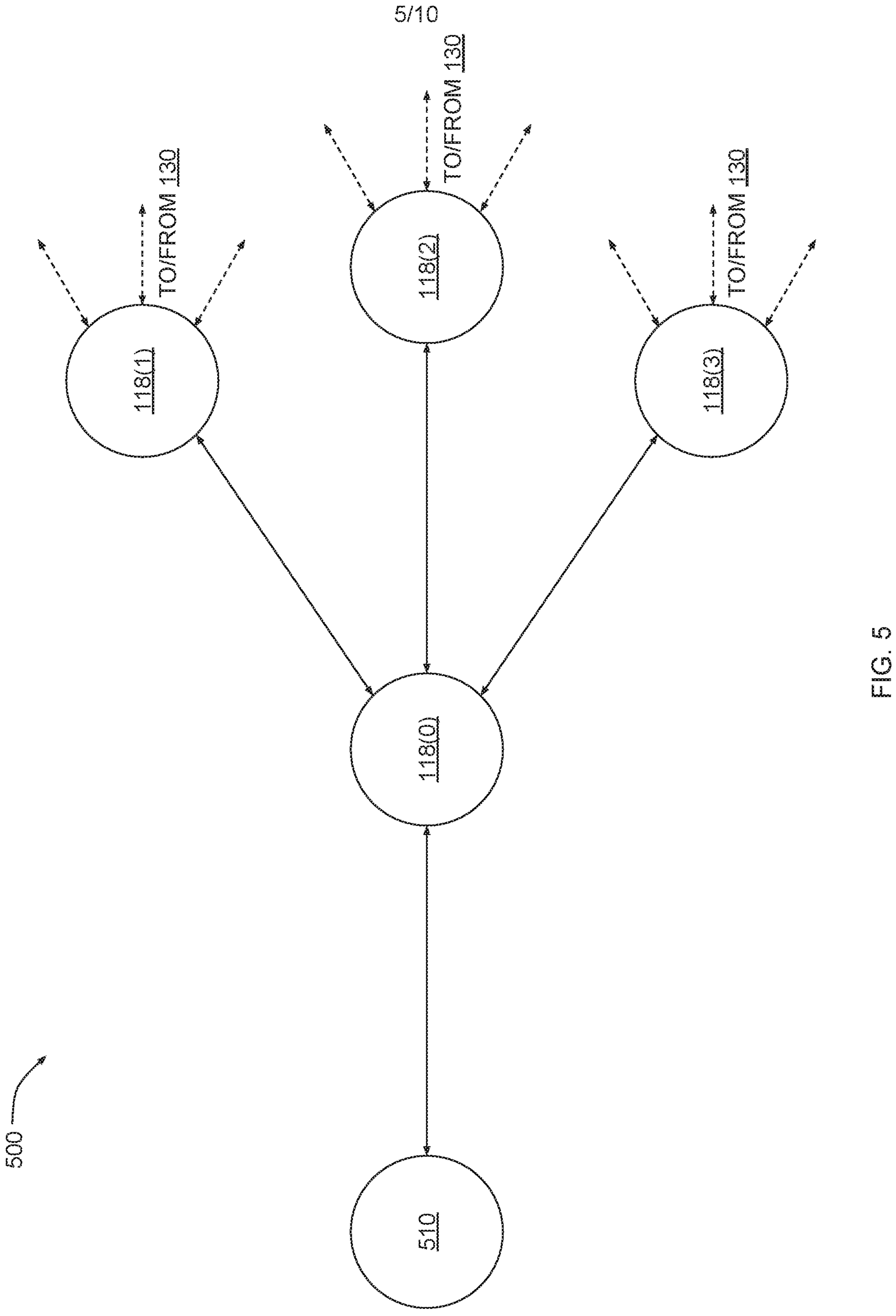

FIG. 5

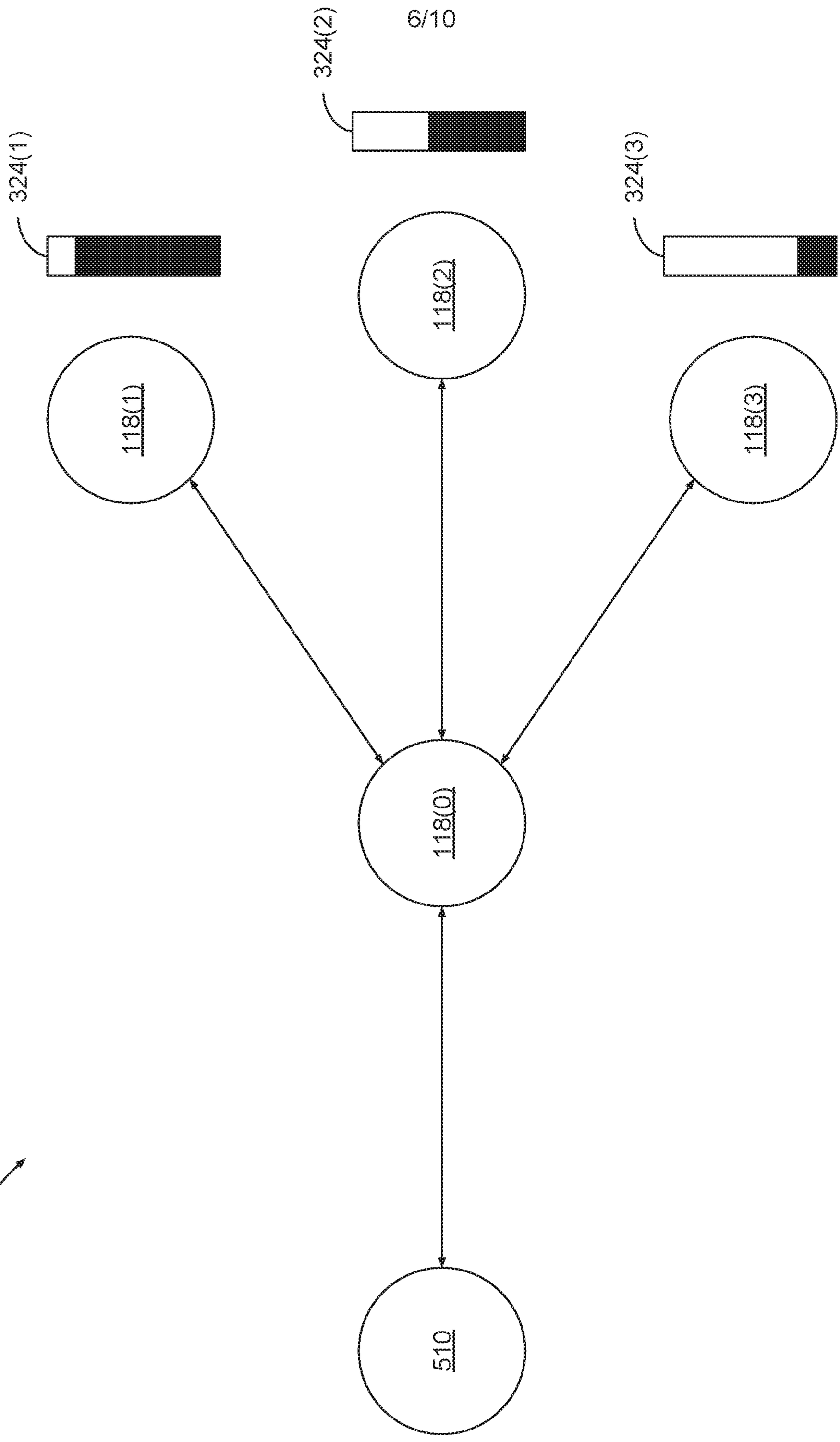

FIG. 6

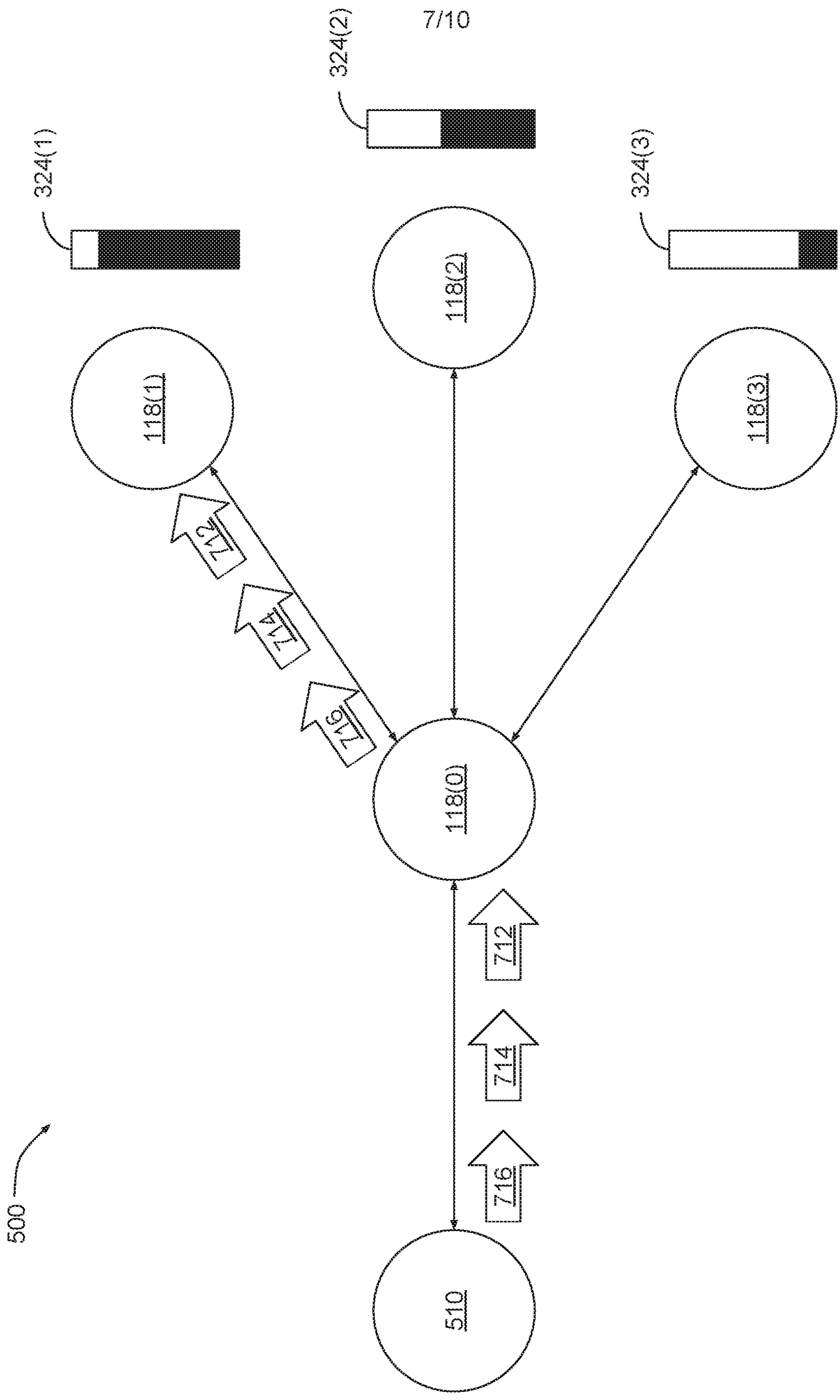
500
510
716
714
712
118(0)
118(1)
118(2)
118(3)
324(1)
324(2)
324(3)
716
714
712

FIG. 7

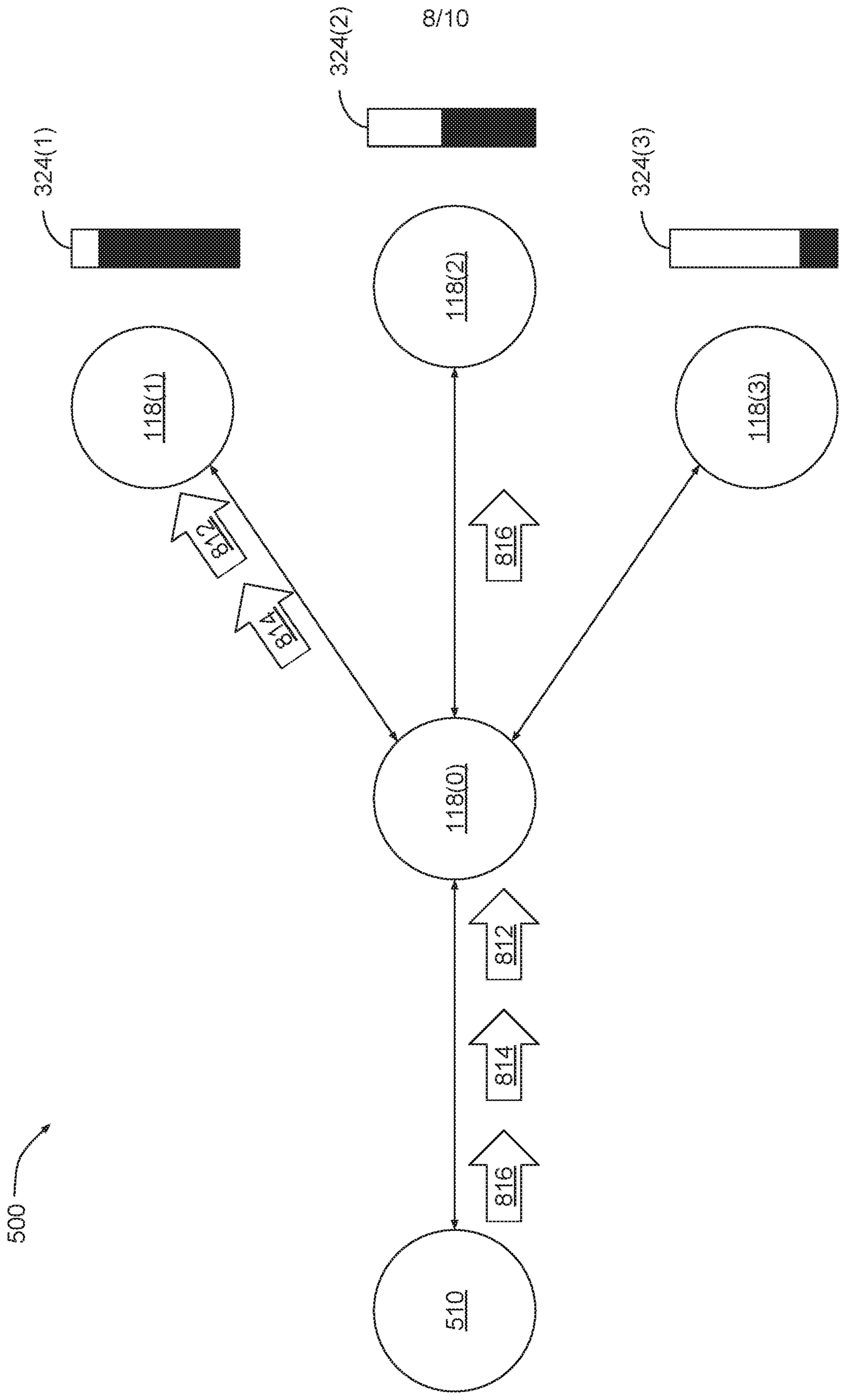

FIG. 8

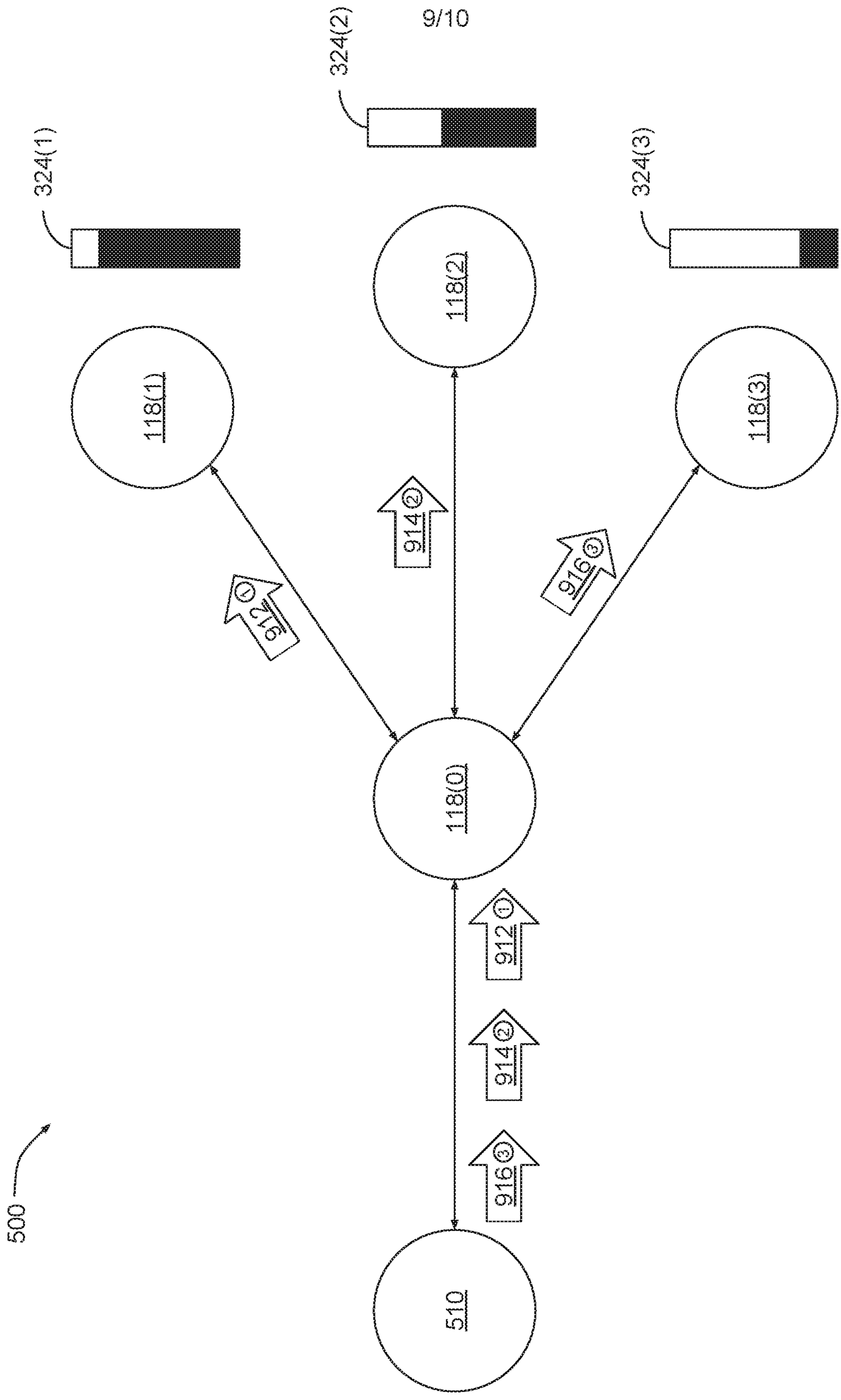
500
510
118(0)
118(1)
118(2)
118(3)
912 ①
914 ②
916 ③
914 ②
916 ③
916 ③
914 ②
324(1)
324(2)
324(3)

FIG. 9

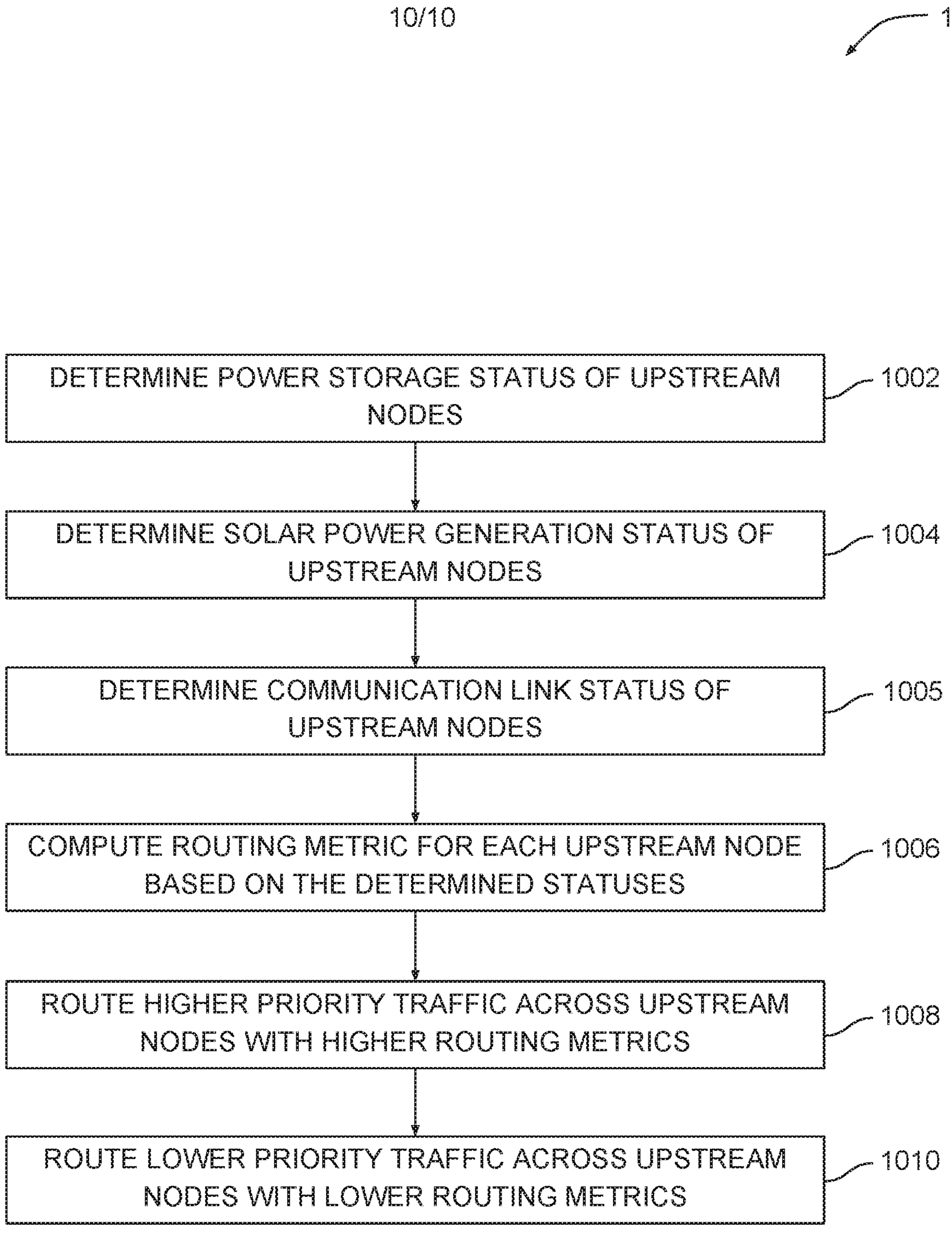
1000
DETERMINE POWER STORAGE STATUS OF UPSTREAM NODES
1002
DETERMINE SOLAR POWER GENERATION STATUS OF UPSTREAM NODES
1004
DETERMINE COMMUNICATION LINK STATUS OF UPSTREAM NODES
1005
COMPUTE ROUTING METRIC FOR EACH UPSTREAM NODE BASED ON THE DETERMINED STATUSES
1006
ROUTE HIGHER PRIORITY TRAFFIC ACROSS UPSTREAM NODES WITH HIGHER ROUTING METRICS
1008
ROUTE LOWER PRIORITY TRAFFIC ACROSS UPSTREAM NODES WITH LOWER ROUTING METRICS
1010

FIG. 10