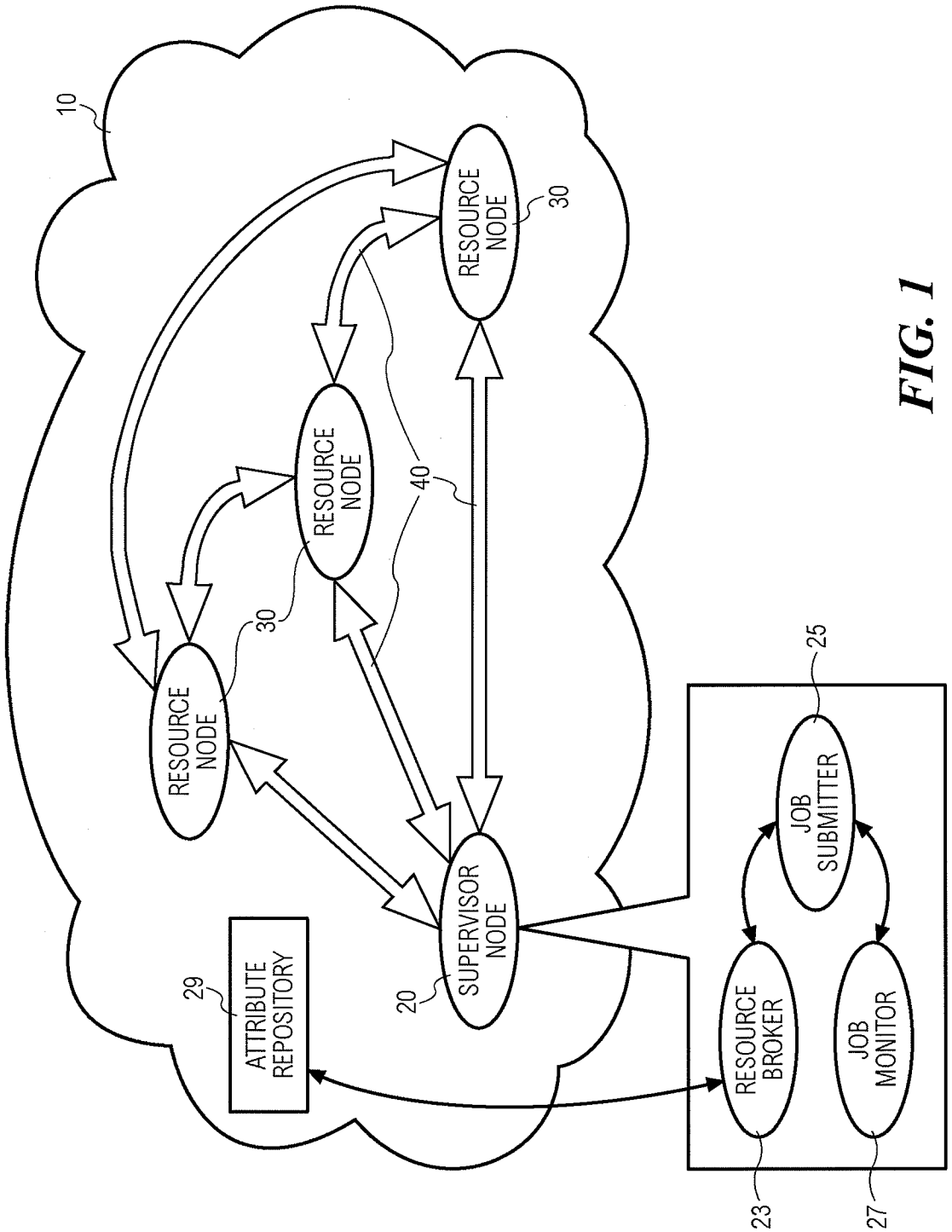

10
RESOURCE NODE
30
RESOURCE NODE
30
RESOURCE NODE
40
SUPERVISOR NODE
20
ATTRIBUTE REPOSITORY
29
25
JOB SUBMITTER
RESOURCE BROKER
23
JOB MONITOR
27

FIG. 1

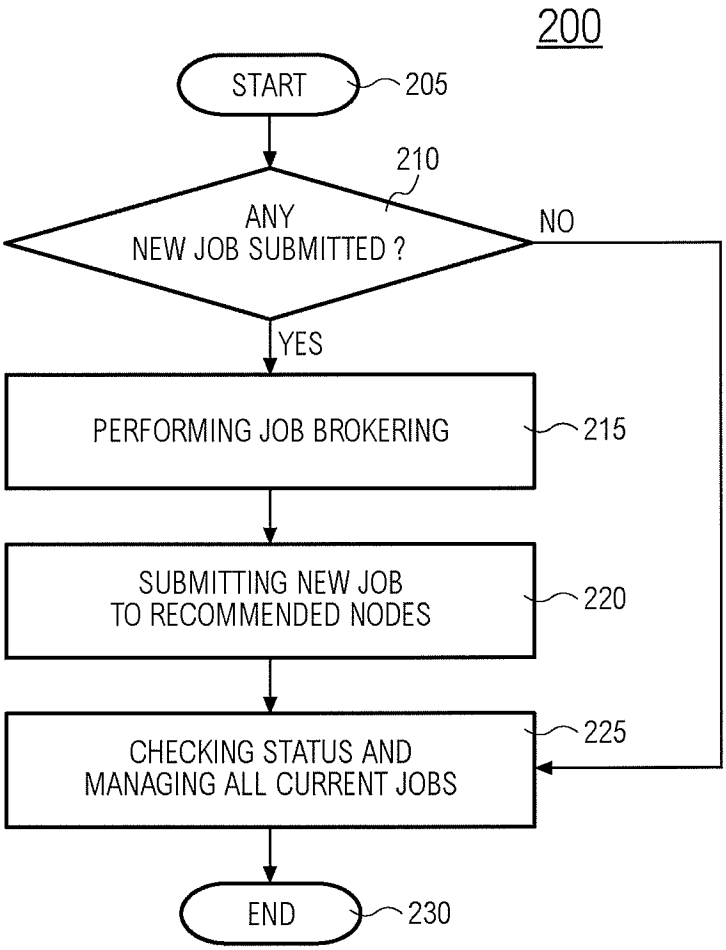

200
START
205
210
ANY
NEW JOB SUBMITTED ?
NO
YES
PERFORMING JOB BROKERING
215
SUBMITTING NEW JOB
TO RECOMMENDED NODES
220
CHECKING STATUS AND
MANAGING ALL CURRENT JOBS
225
END
230

FIG. 2

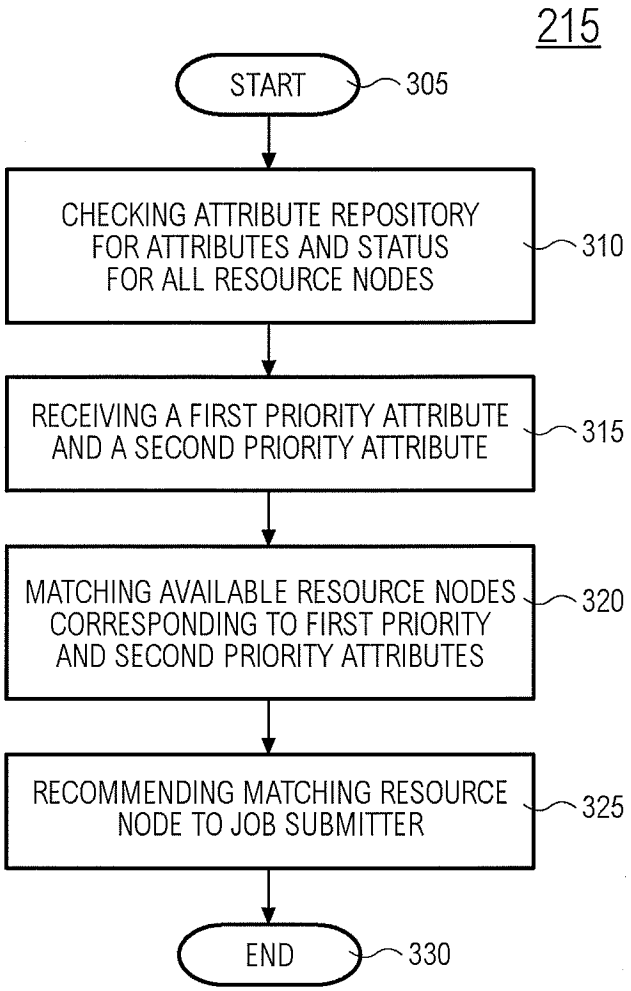

215
START
305
CHECKING ATTRIBUTE REPOSITORY FOR ATTRIBUTES AND STATUS FOR ALL RESOURCE NODES
310
RECEIVING A FIRST PRIORITY ATTRIBUTE AND A SECOND PRIORITY ATTRIBUTE
315
MATCHING AVAILABLE RESOURCE NODES CORRESPONDING TO FIRST PRIORITY AND SECOND PRIORITY ATTRIBUTES
320
RECOMMENDING MATCHING RESOURCE NODE TO JOB SUBMITTER
325
END
330

FIG. 3

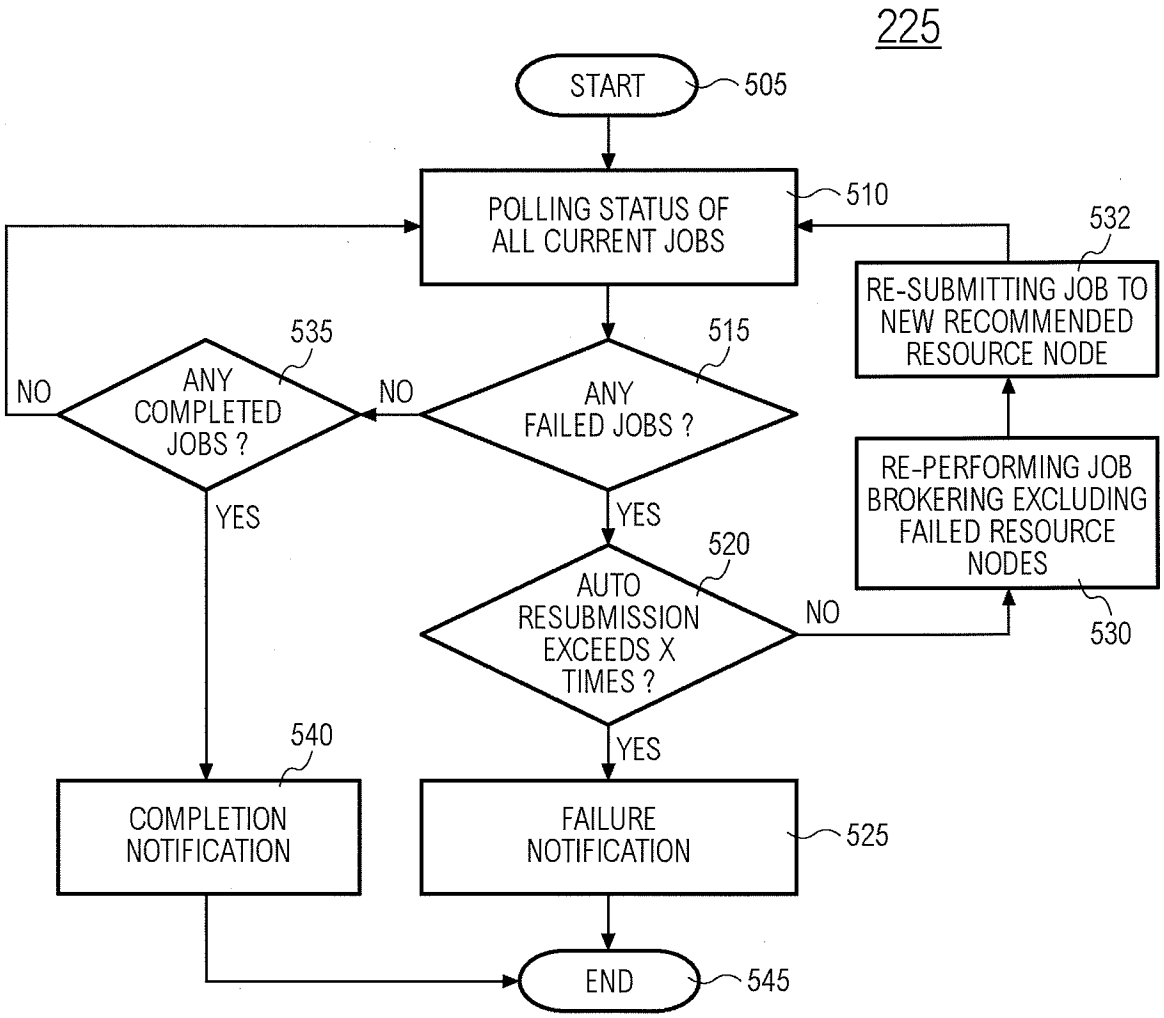

225
START
505
POLLING STATUS OF ALL CURRENT JOBS
510
532
RE-SUBMITTING JOB TO NEW RECOMMENDED RESOURCE NODE
535
515
NO
ANY COMPLETED JOBS ?
NO
ANY FAILED JOBS ?
YES
YES
520
AUTO RESUBMISSION EXCEEDS X TIMES ?
NO
RE-PERFORMING JOB BROKERING EXCLUDING FAILED RESOURCE NODES
530
540
YES
COMPLETION NOTIFICATION
FAILURE NOTIFICATION
525
END
545

FIG. 4

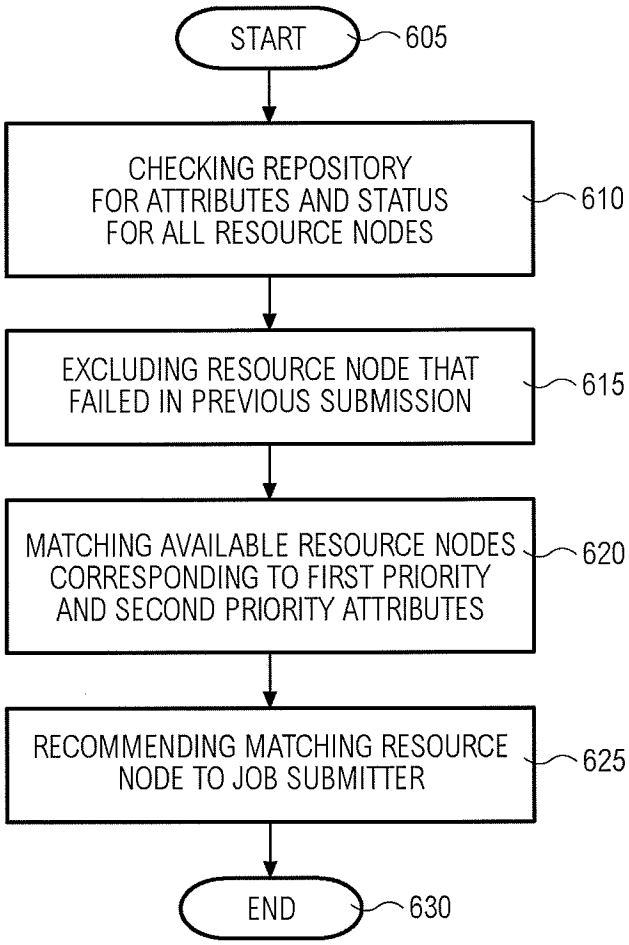

START
605
CHECKING REPOSITORY FOR ATTRIBUTES AND STATUS FOR ALL RESOURCE NODES
610
EXCLUDING RESOURCE NODE THAT FAILED IN PREVIOUS SUBMISSION
615
MATCHING AVAILABLE RESOURCE NODES CORRESPONDING TO FIRST PRIORITY AND SECOND PRIORITY ATTRIBUTES
620
RECOMMENDING MATCHING RESOURCE NODE TO JOB SUBMITTER
625
END
630

FIG. 5