

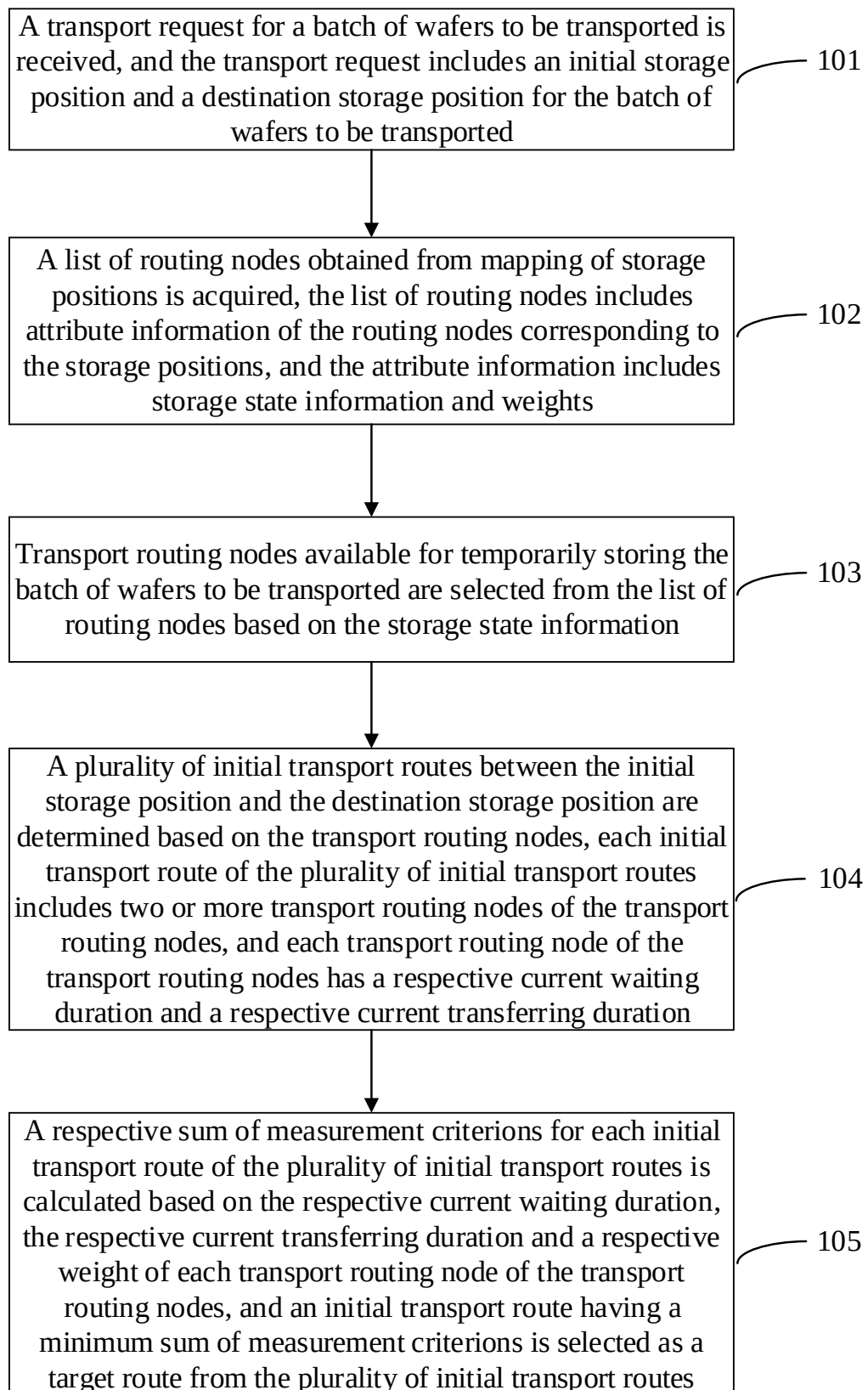


**FIG. 1**

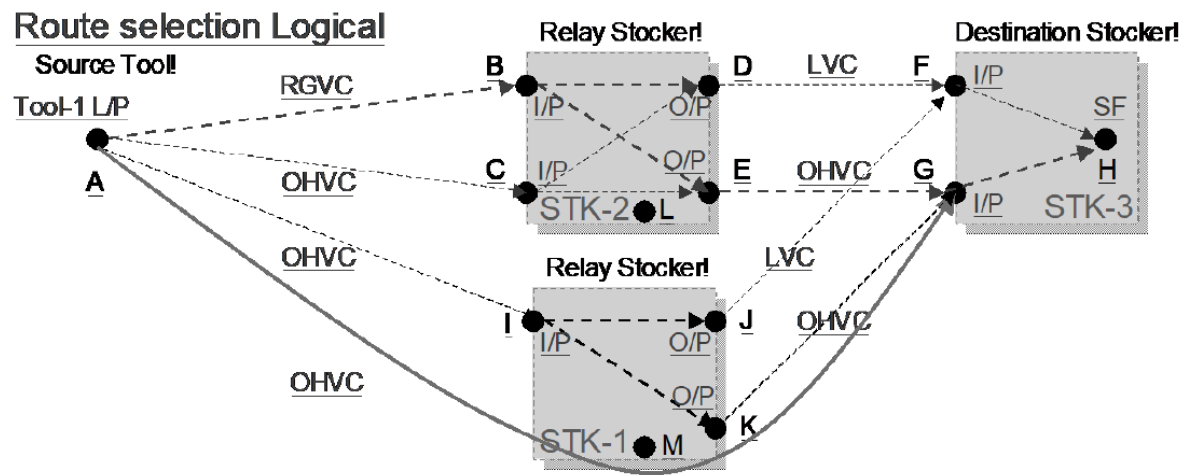


FIG. 2

| Route Case | Routing Path |   |   |   |   |
|------------|--------------|---|---|---|---|
| Case 1     | A            | B | D | F | H |
| Case 2     | A            | B | E | G | H |
| Case 3     | A            | C | D | F | H |
| Case 4     | A            | C | E | G | H |
| Case 5     | A            | I | J | F | H |
| Case 6     | A            | I | K | G | H |
| Case 7     | A            |   |   | G | H |

FIG. 3

| N<br>o<br>d<br>e | N<br>o<br>d<br>e | X'fer<br>Device | R-Time<br>Cost |   | D-Time<br>Cost |   | Current<br>status |   | Weight |   | Metric |
|------------------|------------------|-----------------|----------------|---|----------------|---|-------------------|---|--------|---|--------|
|                  |                  |                 | Y/N            |   | Y/N            |   | Y/N               |   | Y/N    |   |        |
| A                | B                | RGVC            | 5              | Y | 50             | Y | 5                 | N | 1      | N | 55     |
| A                | C                | OHVC-1          | 40             | Y | 120            | Y | 35                | N | 1      | N | 160    |
| A                | I                | OHVC-1          | 40             | Y | 120            | Y | 35                | N | 1      | N | 160    |
| A                | G                | OHVC-1          | 40             | Y | 800            | Y | 35                | N | 1      | N | 840    |
| B                | D                | Crane           | 5              | Y | 20             | Y | 6                 | Y | 15     | Y | 115    |
| B                | E                | Crane           | 5              | Y | 20             | Y | 4                 | Y | 15     | Y | 85     |
| C                | D                | Crane           | 5              | Y | 20             | Y | 6                 | Y | 15     | Y | 115    |
| C                | E                | Crane           | 5              | Y | 20             | Y | 4                 | Y | 15     | Y | 85     |
| D                | F                | LVC             | 30             | Y | 180            | Y | 30                | N | 1      | N | 210    |
| E                | G                | OHVC-1          | 40             | Y | 240            | Y | 35                | N | 1      | N | 280    |
| F                | H                | Crane           | 5              | Y | 20             | Y | 3                 | Y | 15     | Y | 70     |
| G                | H                | Crane           | 5              | Y | 20             | Y | 3                 | Y | 15     | Y | 70     |
| I                | J                | Crane           | 5              | Y | 20             | Y | 2                 | Y | 15     | Y | 55     |
| I                | K                | Crane           | 5              | Y | 20             | Y | 1                 | Y | 15     | Y | 40     |
| J                | F                | LVC             | 30             | Y | 180            | Y | 30                | N | 1      | N | 210    |
| K                | G                | OHVC-1          | 40             | Y | 240            | Y | 35                | N | 1      | N | 280    |
| L                | D                | Crane           | 5              | Y | 20             | Y | 6                 | Y | 15     | Y | 115    |
| L                | E                | Crane           | 5              | Y | 20             | Y | 4                 | Y | 15     | Y | 85     |
| M                | J                | Crane           | 5              | Y | 20             | Y | 2                 | Y | 15     | Y | 55     |
| M                | K                | Crane           | 5              | Y | 20             | Y | 1                 | Y | 15     | Y | 40     |

FIG. 4

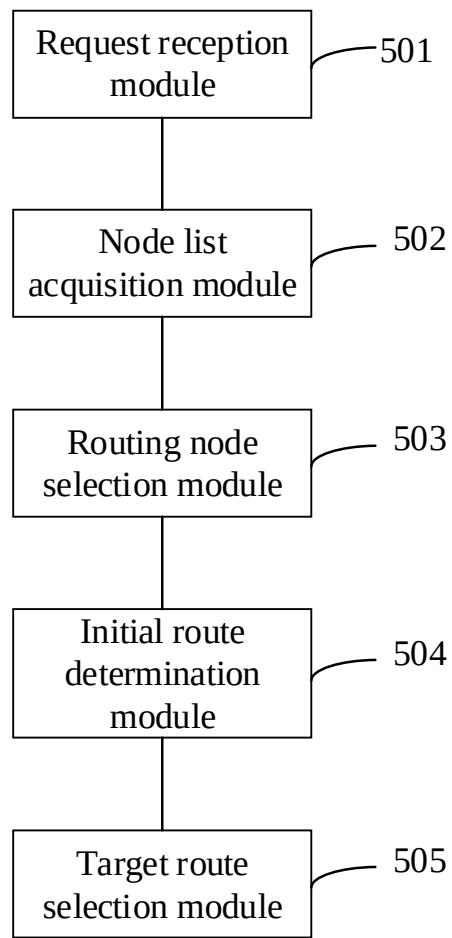


**FIG. 5**

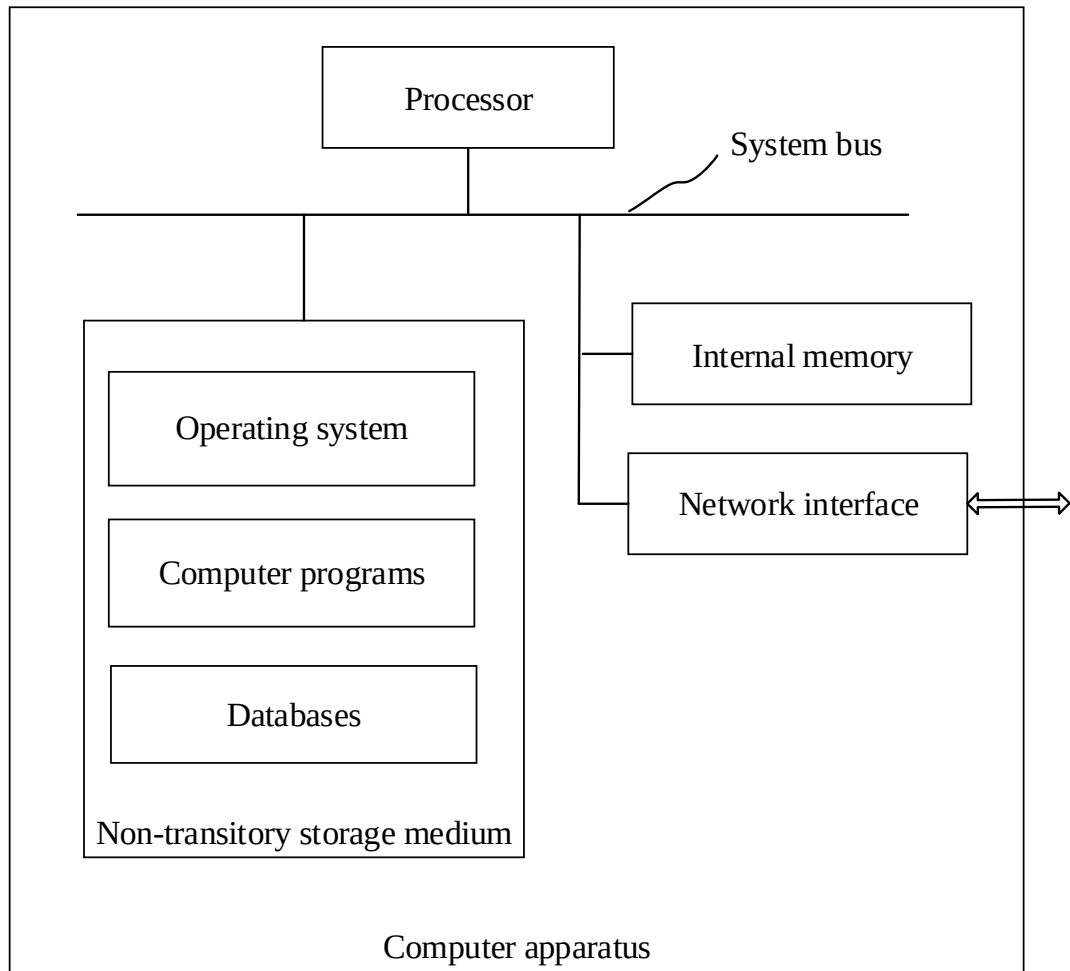


**FIG. 6**