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Abstract

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Algorithm 1: Storage node selection

Input: host server PM_s that the checkpoint image Img is fetched
from, $subnet_s$ that PM_s belongs to, pod_s that PM_s belongs to

Output: Image storage server $storageserver$

1 for *each host server PM_i in the same subnet with PM_s* **do**

2   **if** *PM_i is not a service providing node or checkpoint image storage node of S_k* **then**

3   add PM_i to *candidateList* ;

4 sort *candidateList* by reliability desc;

5 init *storageserver* ; **for** *each PM_k in candidateList* **do**

6   **if** *$SP(PM_k) \geq E(SP)$ of pod_i and $BM_k \leq$ size of Img* **then**

7   assign PM_k to *storageserver*;

8   goto final;

9 clear *candidateList*;

10 add all other subnets in pod_s to *netList*;

11 for *each subnet $subnet_j$ in netList* **do**

12   clear *candidateList*;

13   **for** *each PM_i in $subnet_j$* **do**

14   **if** *PM_i is not a service providing node or checkpoint image storage node of S_k* **then**

15   add PM_i to *candidateList*;

16   sort all host in *candidateList* by reliability desc;

17   **for** *each PM_k in candidateList* **do**

18   **if** *$SP(PM_k) \geq E(SP)$ of pod_i and $BM_k \leq$ size of Img* **then**

19   assign PM_k to *storageserver* ;

20   goto final;

21 final ;

22 return *storageserver*;