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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 $storageserver$

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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      $\lfloor$  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  $BM_k \leq \text{size of } Img$  then
7     assign  $PM_k$  to  $storageserver$ ;
8    $\lfloor$  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        $\lfloor$  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  $BM_k \leq \text{size of } Img$  then
19       assign  $PM_k$  to  $storageserver$  ;
20      $\lfloor$  goto final;
21 final ;
22 return  $storageserver$ ;
```
