Paper Review Solution (CS-565)

S1/S2.

Let represent the number of VMs available at the edge node after allocation at time slot .

Assume

At time slot (t = 1):

Demand:

Action:

No of VMs allocated from cloud:

No of VMs allocated from edge node:

No of VMs remaining at the edge node:

Resources can be successfully allocated from edge node; hence, allocation record will be generated:

Allocation record:

Allocation Record List

Updated Allocation Record List

Number of VMs waiting to be released:

Number of VMs available at next time slot:

Cost at the edge node:

Cost at the private cloud:

Cost at the public cloud:

At time slot (t = 2):

Demand:

Action:

No of VMs allocated from cloud:

No of VMs allocated from edge node:

No of VMs remaining at the edge node:

Resources can be successfully allocated from edge node; hence, allocation record will be generated:

Allocation record:

Allocation Record List

Updated Allocation Record List

Number of VMs waiting to be released:

Number of VMs available at next time slot:

Cost at the edge node:

Cost at the private cloud:

Cost at the public cloud:

At time slot (t = 3):

Demand:

Action:

No of VMs allocated from cloud:

No of VMs allocated from edge node:

No of VMs remaining at the edge node:

Resources can be successfully allocated from edge node; hence, allocation record will be generated:

Allocation record:

Allocation Record List

Updated Allocation Record List

Number of VMs waiting to be released:

Number of VMs available at next time slot:

Cost at the edge node:

Cost at the private cloud:

Cost at the public cloud: