1 Plotting all figures

1.1

Cluster and Node Placement Times (s)
services cluster−placement−time node−placement−time
light−memory 0,00 2,70
medium−memory 0,00 2,80
large−memory 0,00 2,70
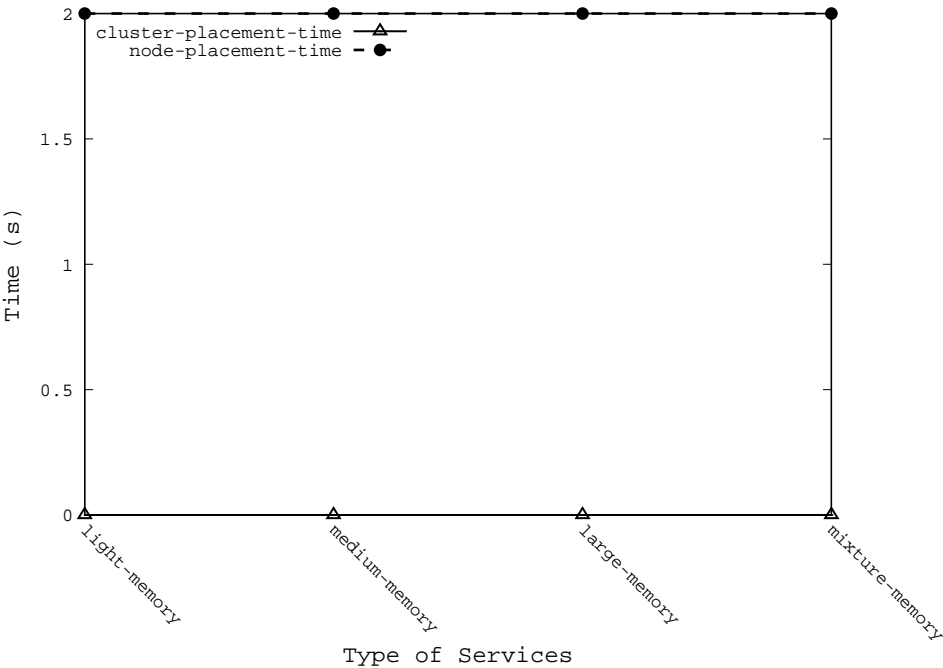mixture−memory 0,00 2,50

Fig. 1.

1.2

Cluster CPU Utilization (%)
clusters cluster−1 cluster−2 cluster−3
light−memory 100,00 33,80 99,30
medium−memory 100,00 33,00 99,80
large−memory 100,00 99,80 74,70
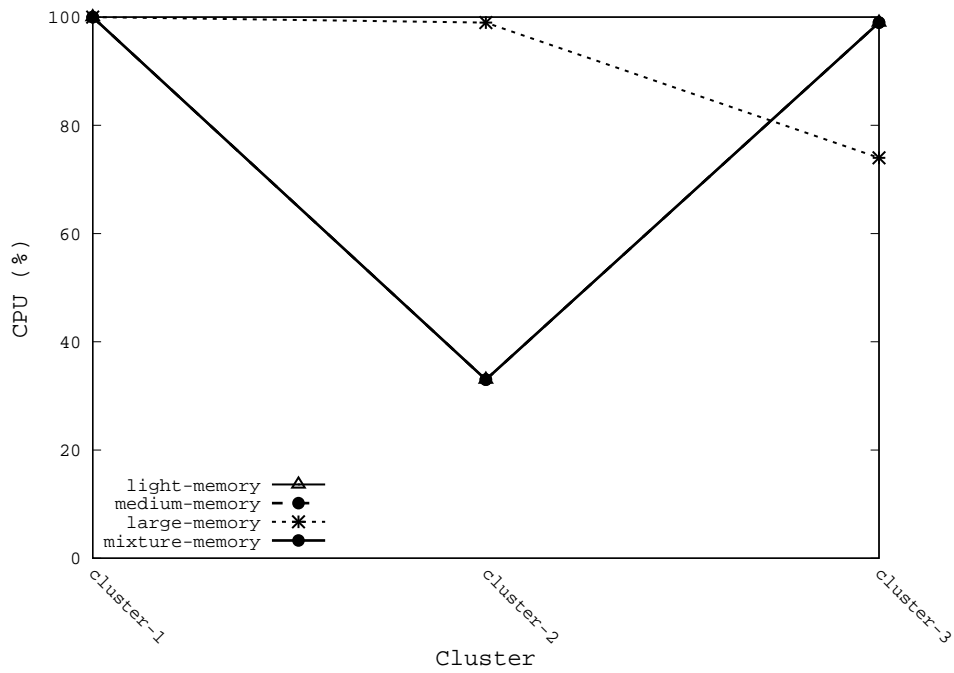mixture−memory 100,00 33,00 99,80

1

Fig. 2.

1.3

Cluster Memory Utilization (%)
clusters cluster−1 cluster−2 cluster−3
light−memory 6,00 2,00 7,90
medium−memory 25,00 8,00 33,00
large−memory 100,00 100,00 100,00
mixture−memory 6,00 2,00 45,00

1.4

Cluster Node Utilization (%)
clusters cluster−1 cluster−2 cluster−3
light−memory 100,00 36,30 100,00
medium−memory 100,00 33,00 100,00
large−memory 100,00 100,00 100,00
mixture−memory 100,00 33,00 100,00
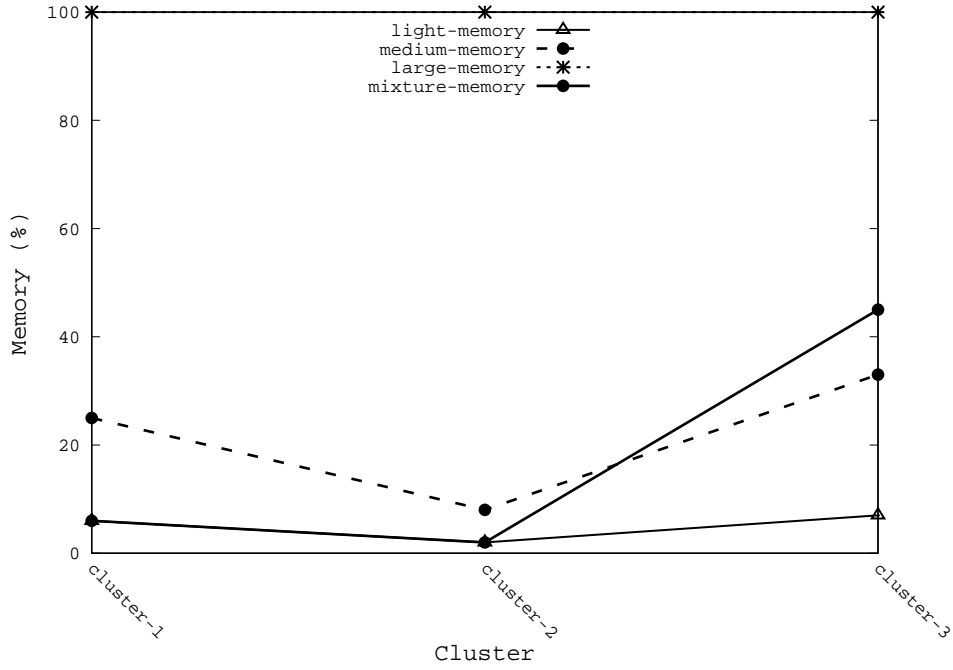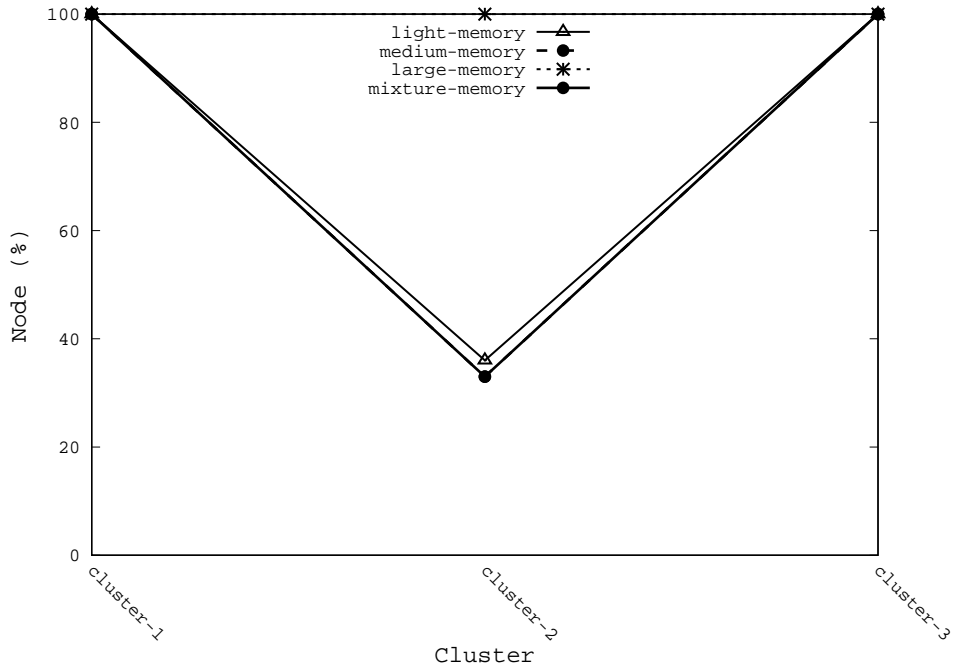
1.5

Node CPU Utilization (%)

Fig. 3.

Fig. 4.

nodes cluster –1–node1 cluster –1–node2 cluster –2–node1
   cluster –2–node2 cluster –2–node3 cluster –3–node1
   cluster –3–node2 cluster –3–node3 cluster –3–node4
light –memory 100,00 100,00 100,00 2,50 0,00 99,90 99,80
   99,60 98,40

medium–memory 100,00 100,00 99,90 0,00 0,00 99,80 99,60
99,40 99,70

large–memory 100,00 100,00 100,00 99,70 99,90 74,70
74,90 74,80 74,70

mixture–memory 100,00 100,00 99,90 0,00 0,00 99,70
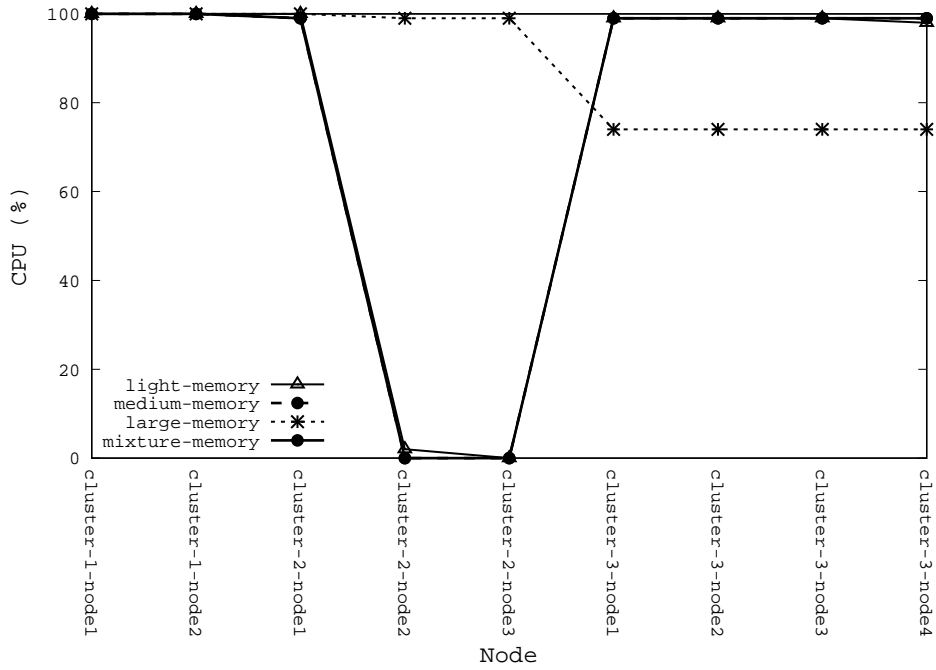99,70 99,80 99,80

Fig. 5.

1.6

Node Memory Utilization (%)

nodes cluster–1–node1 cluster–1–node2 cluster–2–node1
cluster–2–node2 cluster–2–node3 cluster–3–node1
cluster–3–node2 cluster–3–node3 cluster–3–node4

light–memory 6,00 6,00 6,00 0,10 0,00 8,00 8,00 8,00
7,90

medium–memory 25,00 25,00 25,00 0,00 0,00 33,00 33,00
33,00 33,00

large–memory 100,00 100,00 100,00 100,00 100,00 100,00
100,00 100,00 100,00

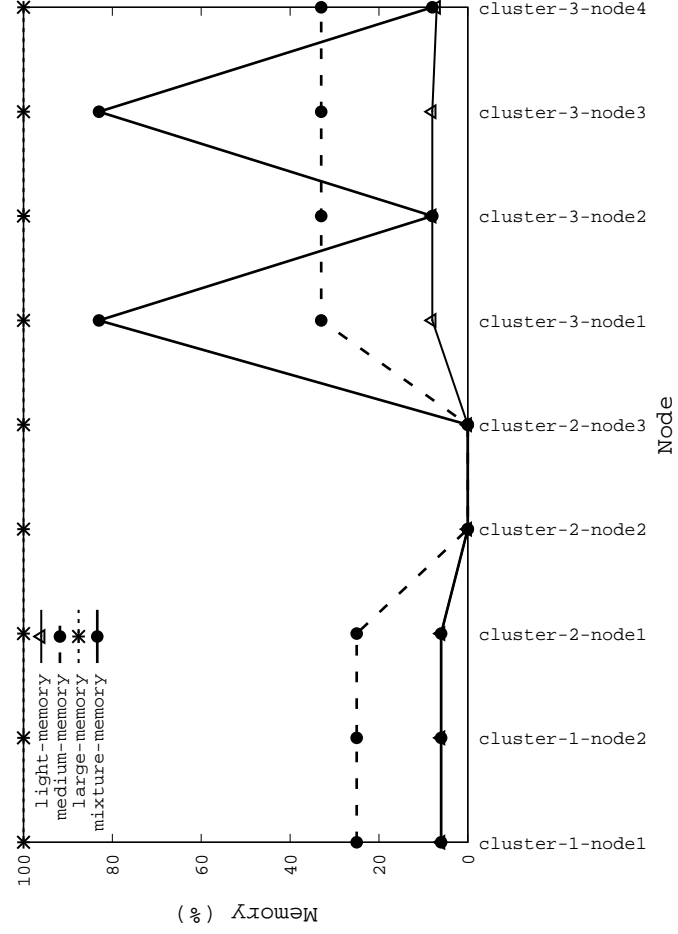mixture–memory 6,00 6,00 6,00 0,00 0,00 83,00 8,00
83,00 8,00

Fig. 6.

5