

## 1 Plotting all figures

### 1.1

Cluster and Node Placement Times (s)

```
replications cluster-placement-time node-placement-time
replica-1 0,00 0,20
replicas-5 0,00 3,10
replicas-10 0,10 6,40
replicas-20 0,60 13,00
replicas-30 0,90 19,50
```

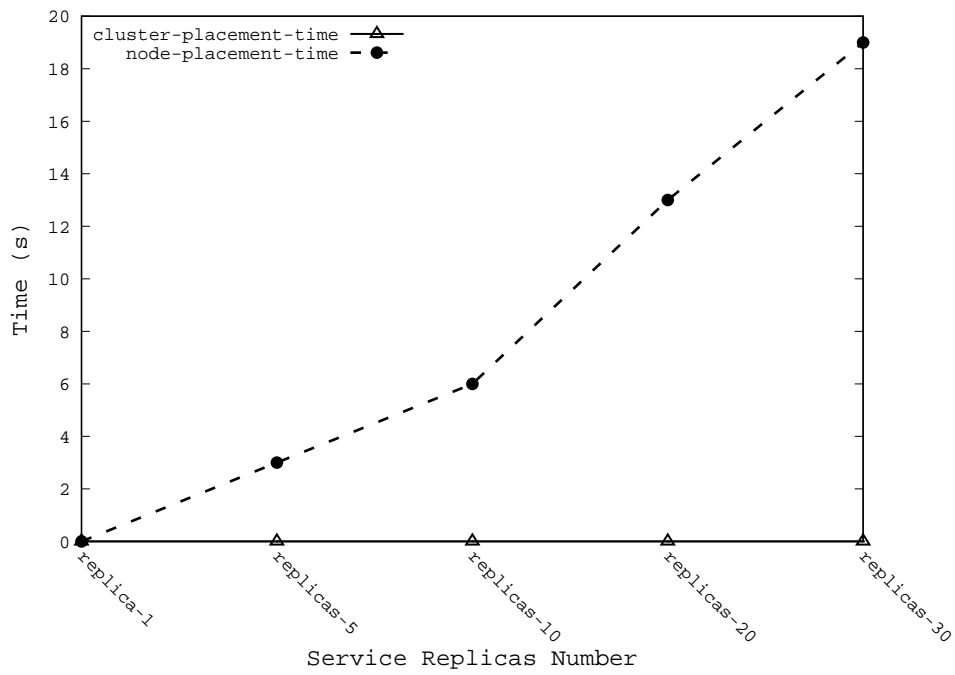


Fig. 1.

### 1.2

Cluster CPU Utilization (%)

```
replications cluster-1 cluster-2 cluster-3
replica-1 7,00 0,00 0,00
replicas-5 39,00 0,00 0,00
replicas-10 78,00 0,00 0,00
replicas-20 99,40 0,00 56,40
replicas-30 99,60 34,70 99,00
```

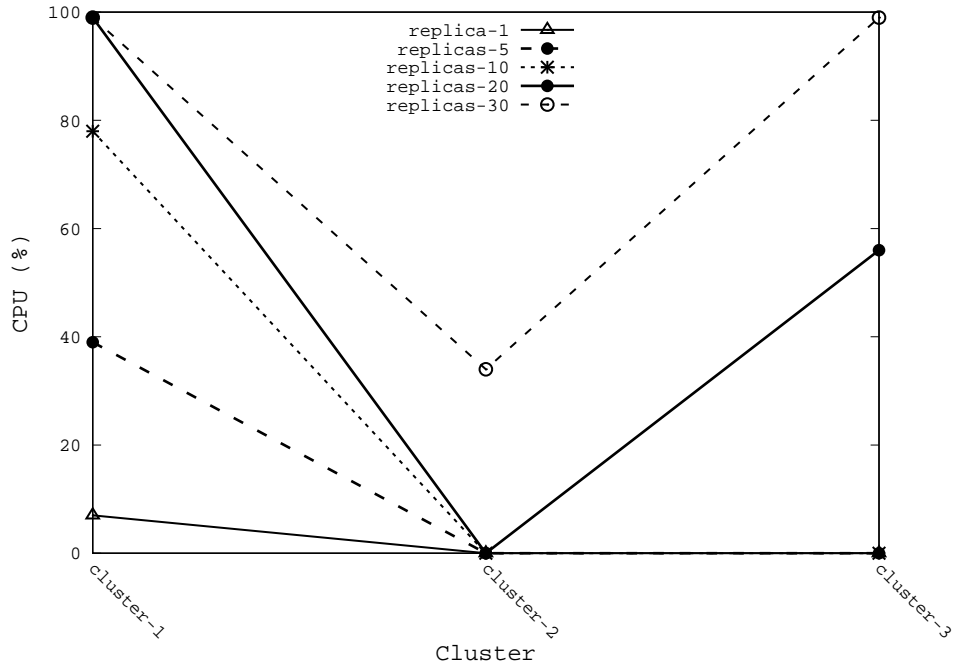


Fig. 2.

### 1.3

Cluster Memory Utilization (%)				
replications	cluster-1	cluster-2	cluster-3	
replica-1	3,00	0,00	0,00	
replicas-5	19,00	0,00	0,00	
replicas-10	39,00	0,00	0,00	
replicas-20	49,60	0,00	28,00	
replicas-30	50,00	17,00	49,30	

### 1.4

Cluster Node Utilization (%)				
replications	cluster-1	cluster-2	cluster-3	
replica-1	100,00	0,00	0,00	
replicas-5	100,00	0,00	0,00	
replicas-10	100,00	0,00	0,00	
replicas-20	100,00	0,00	100,00	
replicas-30	100,00	100,00	100,00	

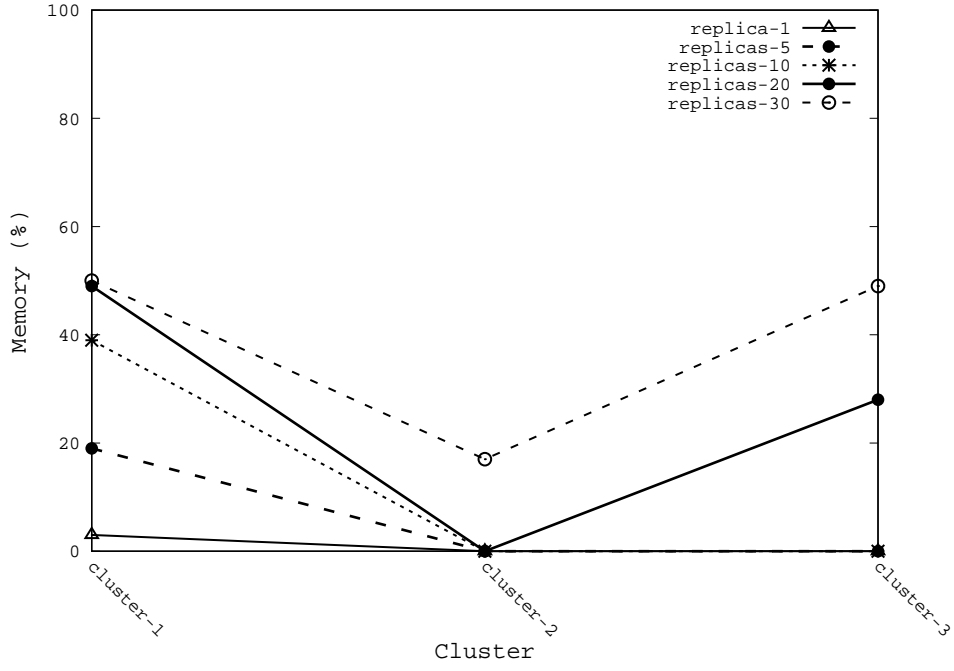


Fig. 3.

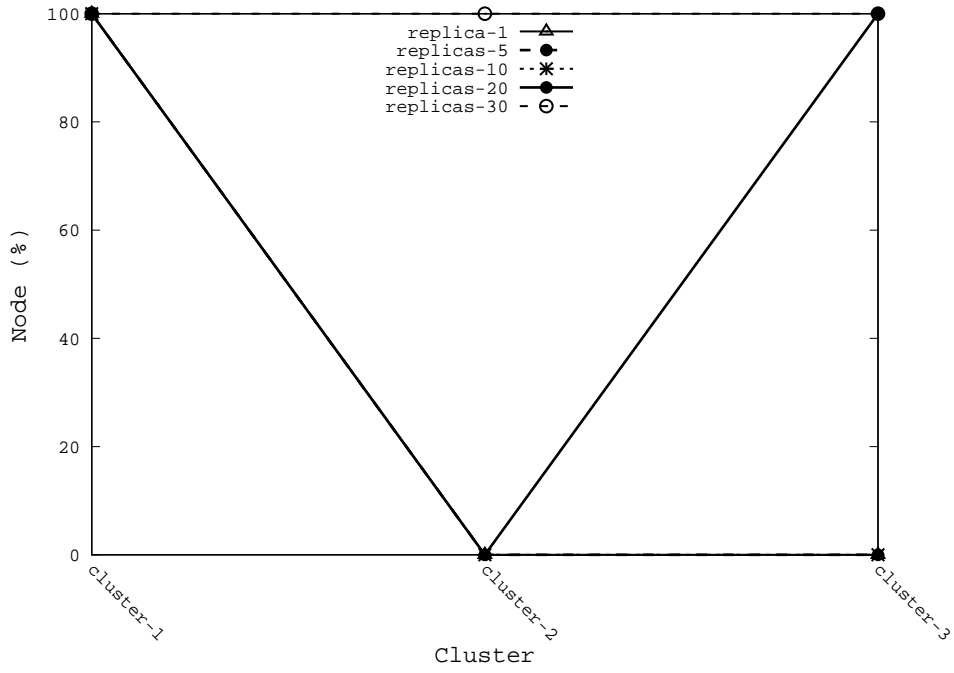


Fig. 4.

1.5

Node CPU Utilization (%)

nodes cluster-1-node1 cluster-1-node2 cluster-2-node1  
cluster-2-node2 cluster-3-node1 cluster-3-node2

```

replica-1 7,00 7,00 0,00 0,00 0,00 0,00
replicas-5 39,00 39,00 0,00 0,00 0,00 0,00
replicas-10 78,00 78,00 0,00 0,00 0,00 0,00
replicas-20 99,60 99,00 0,00 0,00 99,20 12,80
replicas-30 99,50 99,70 69,40 0,00 98,40 99,50

```

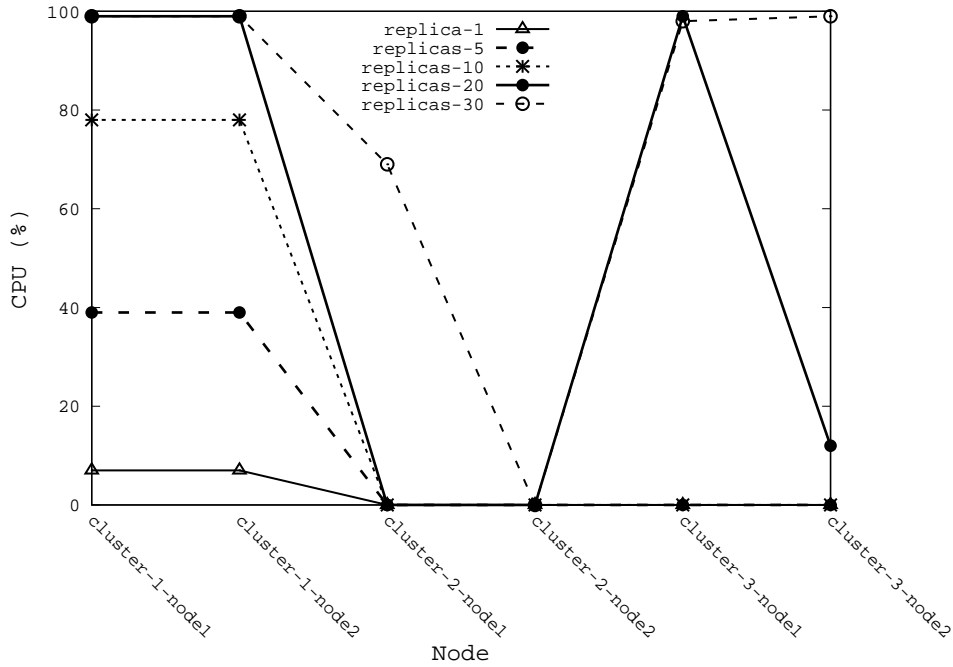


Fig. 5.

## 1.6

### Node Memory Utilization (%)

```

nodes cluster-1-node1 cluster-1-node2 cluster-2-node1
      cluster-2-node2 cluster-3-node1 cluster-3-node2
replica-1 3,00 3,00 0,00 0,00 0,00 0,00
replicas-5 19,00 19,00 0,00 0,00 0,00 0,00
replicas-10 39,00 39,00 0,00 0,00 0,00 0,00
replicas-20 50,00 49,60 0,00 0,00 50,00 6,40
replicas-30 50,00 50,00 34,70 0,00 49,30 50,00

```

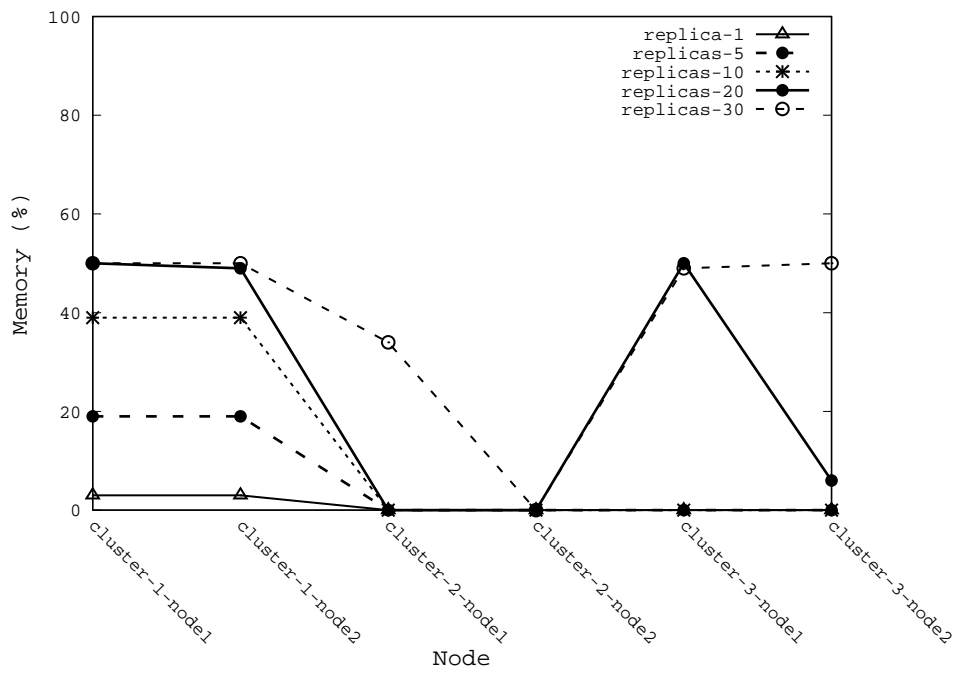


Fig. 6.