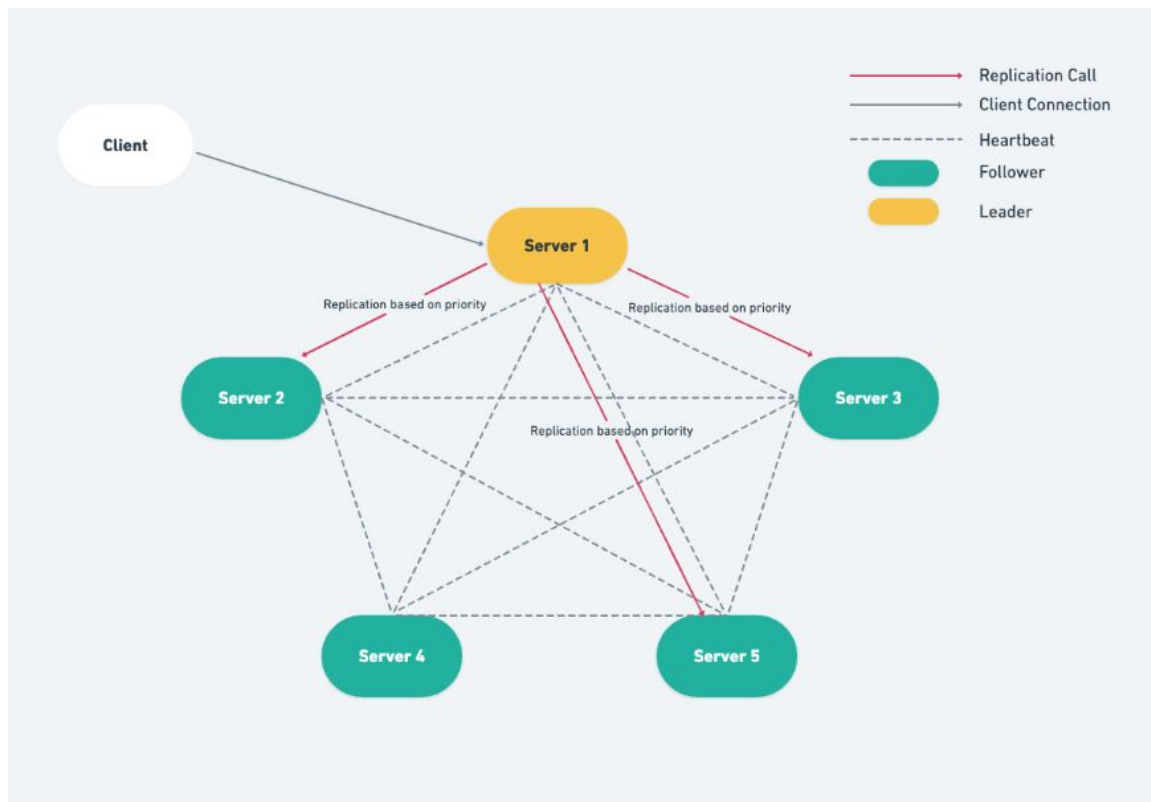# Triage-Based Adaptive Replication (TAR)



## Server-metrics in heartbeat

Task Transfer:
If self server is overloaded
i.e Queue length > Q_THRESH_CEIL
Task Stealing:
If self server is underloaded
i.e Queue length < Q_THRESH_FLOOR

```json
{
  "server_id": 1,
  "cpu_utilization": 2,
  "queue_length": 3,
  "last_heartbeat": 4,
  "network_latency": 5,
}
```

```
[Server] Received RequestTaskTransfer from: server2
[Server] Task transferred to: server2
[Task Stealing] Stole task: task_0 from localhost:50051
[Server] Received RequestTaskTransfer from: server2
[Server] Task transferred to: server2
[Task Stealing] Stole task: task_1 from localhost:50053
```

$$\text{score} = \frac{1.5}{q+1} + \frac{2}{c+1} + \frac{1}{(t-h)+1} - l$$