

1. Experiment

No of Server	Latency
1	108.881
2	258.144
3	294.932
4	375.415
5	425.236

Latency vs. No of Server

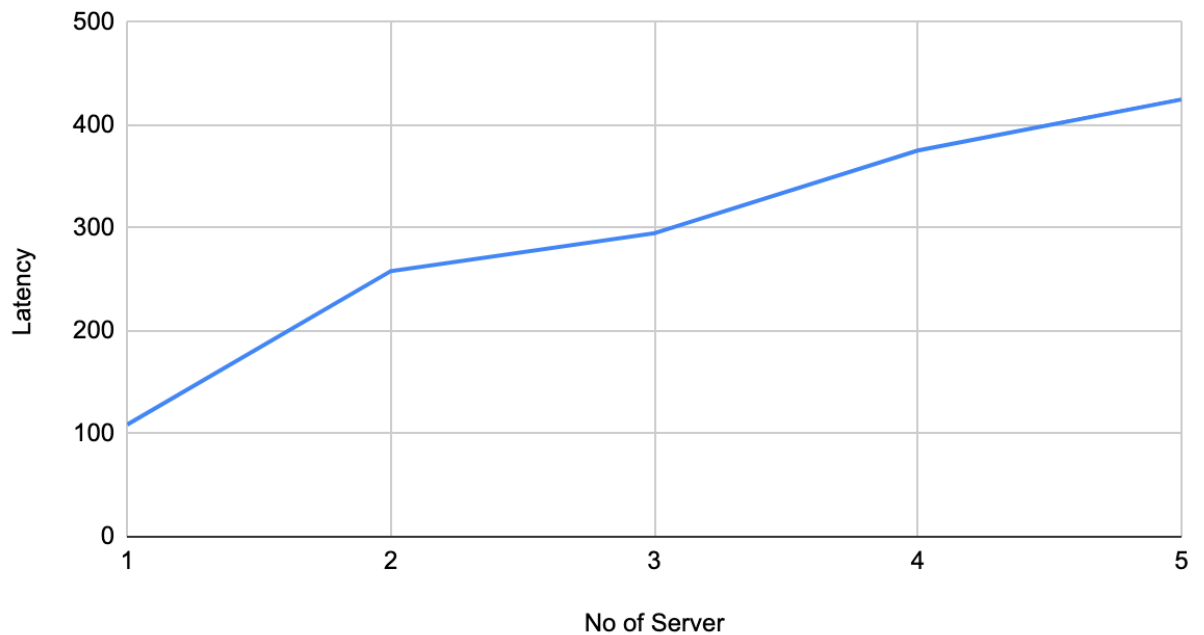


Figure 1: Write Latency vs No of servers

The write latency of requests increases non-strictly linearly with the number of servers in which the customer records need to be replicated on.

2. Software Design

Handshaking: The handshaking mechanism for my design was initially with ACK after the role has been identified. This approach was later discovered to be wasteful and creates a loop.

Invalidation of Failed Server: Backup failed servers stub are set to null and ignored when replicating customer records.

Handling Recovery: Two vector containers are kept to track active and peer dead connections. At every replication request, peers in the dead container are reinitiated and if the connection succeeds they are moved to the active connections containers and the resurrected server is updated to the current committed index after which the replication continues at the current committed index.