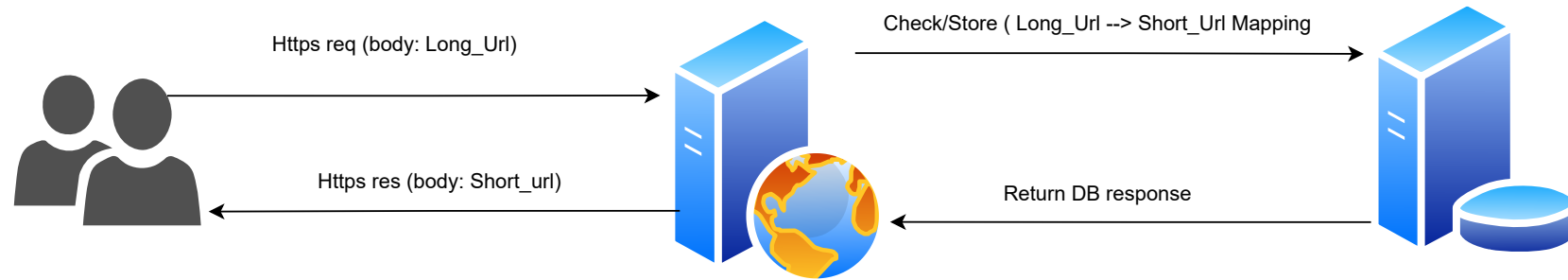
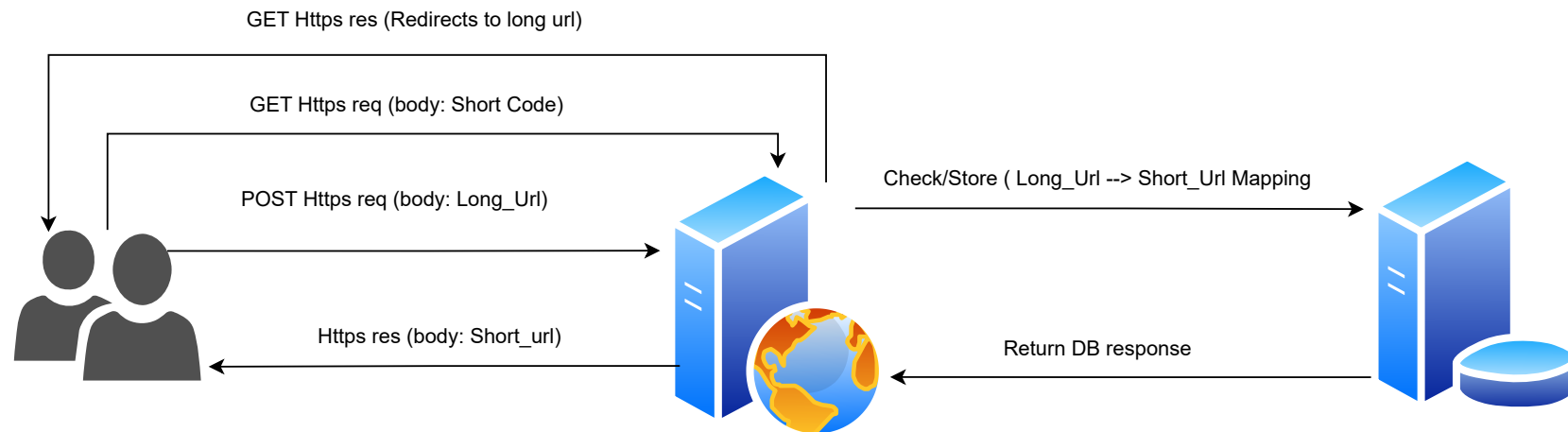


High Level Diagram (HLD) of a URL Shortener

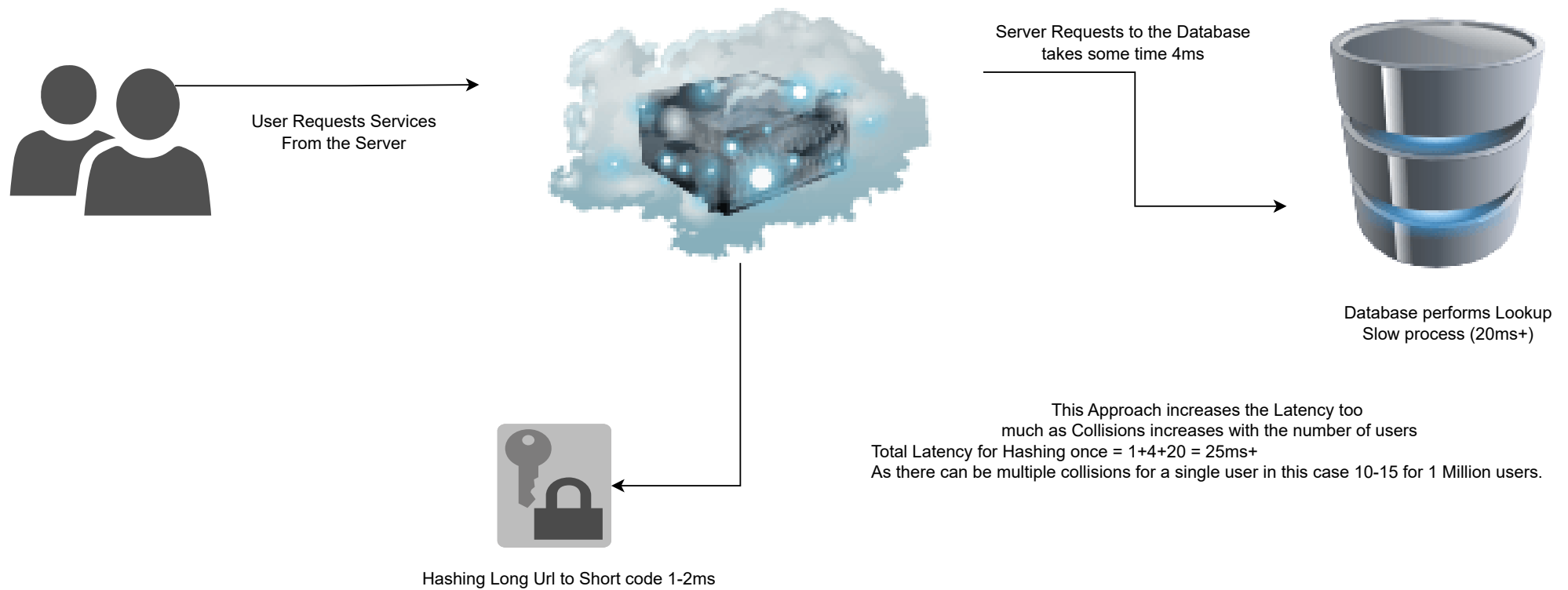


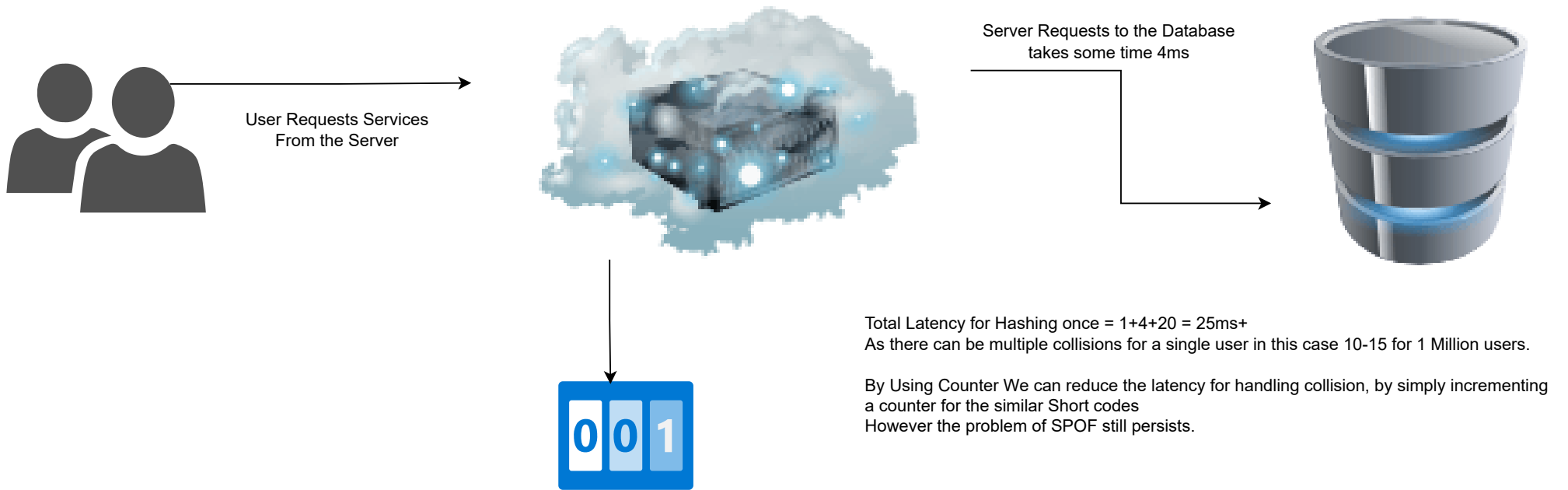
Server performs logical computation on the long url to generate short url



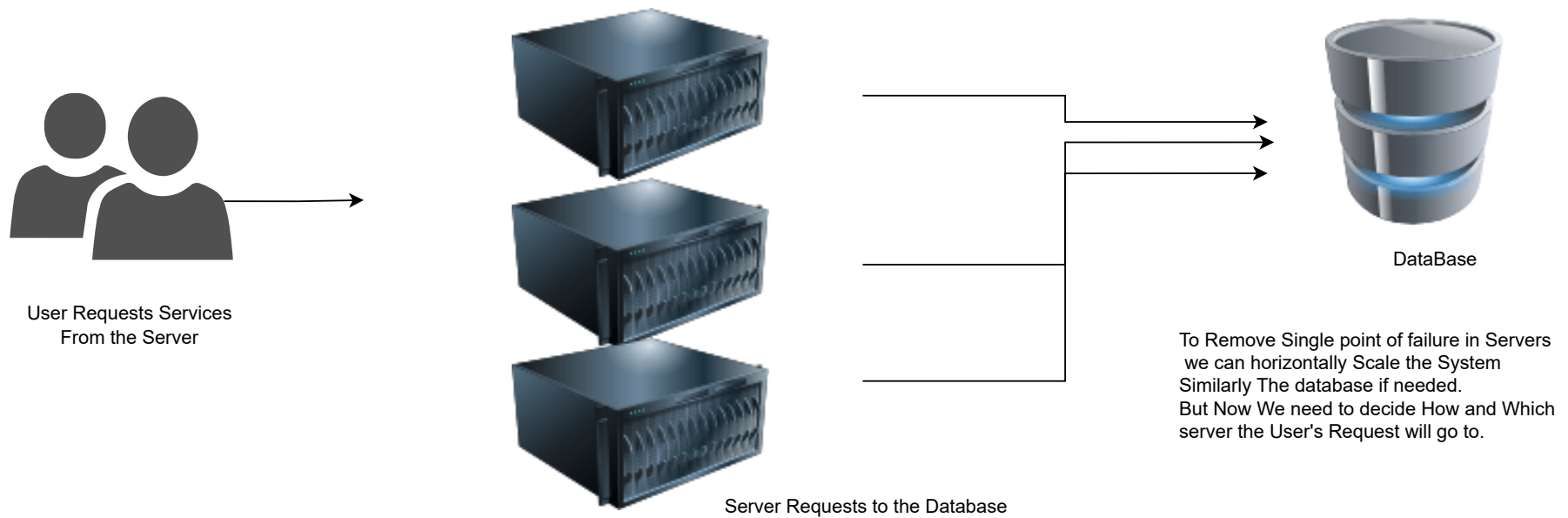
Server performs logical computation on the long url to generate short url

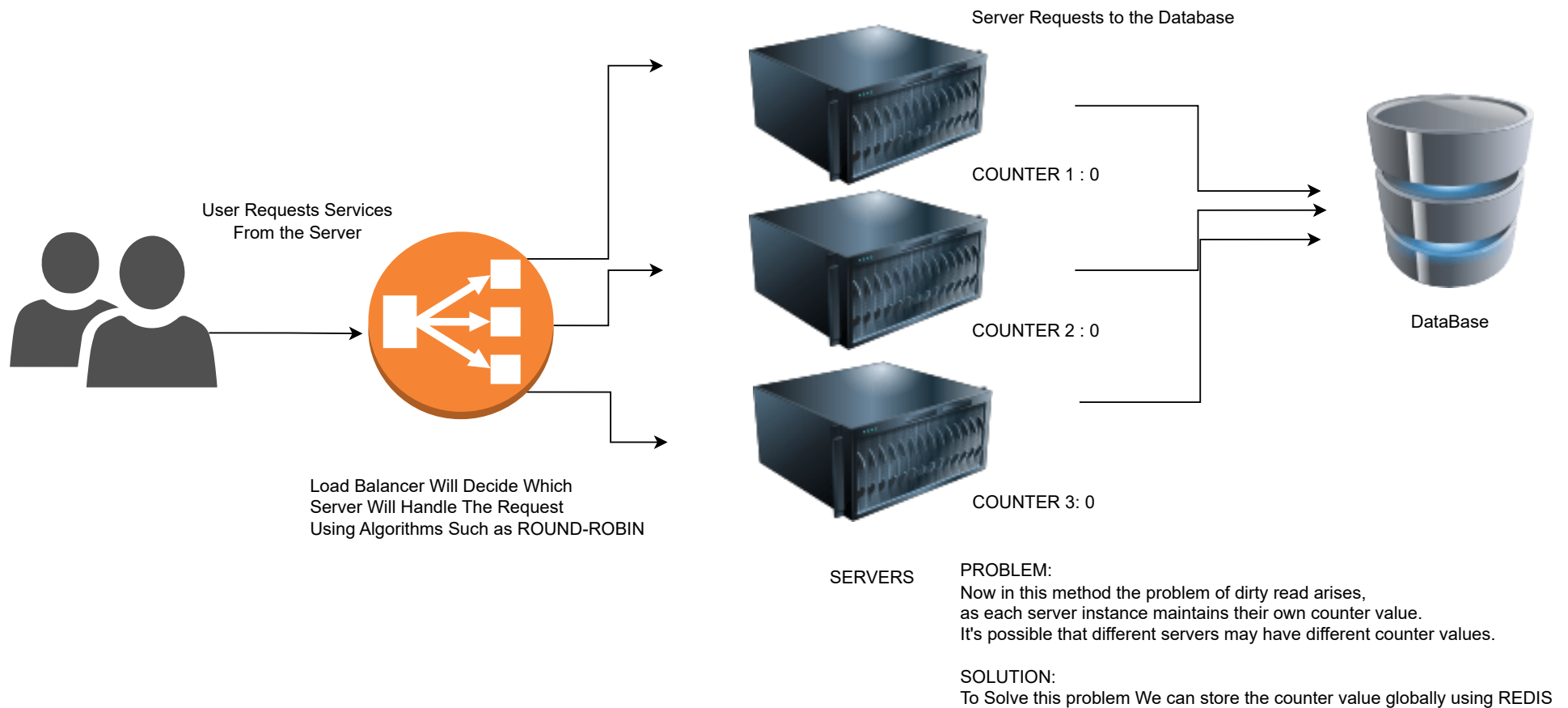
Low Level Diagram (LLD) of a URL Shortener

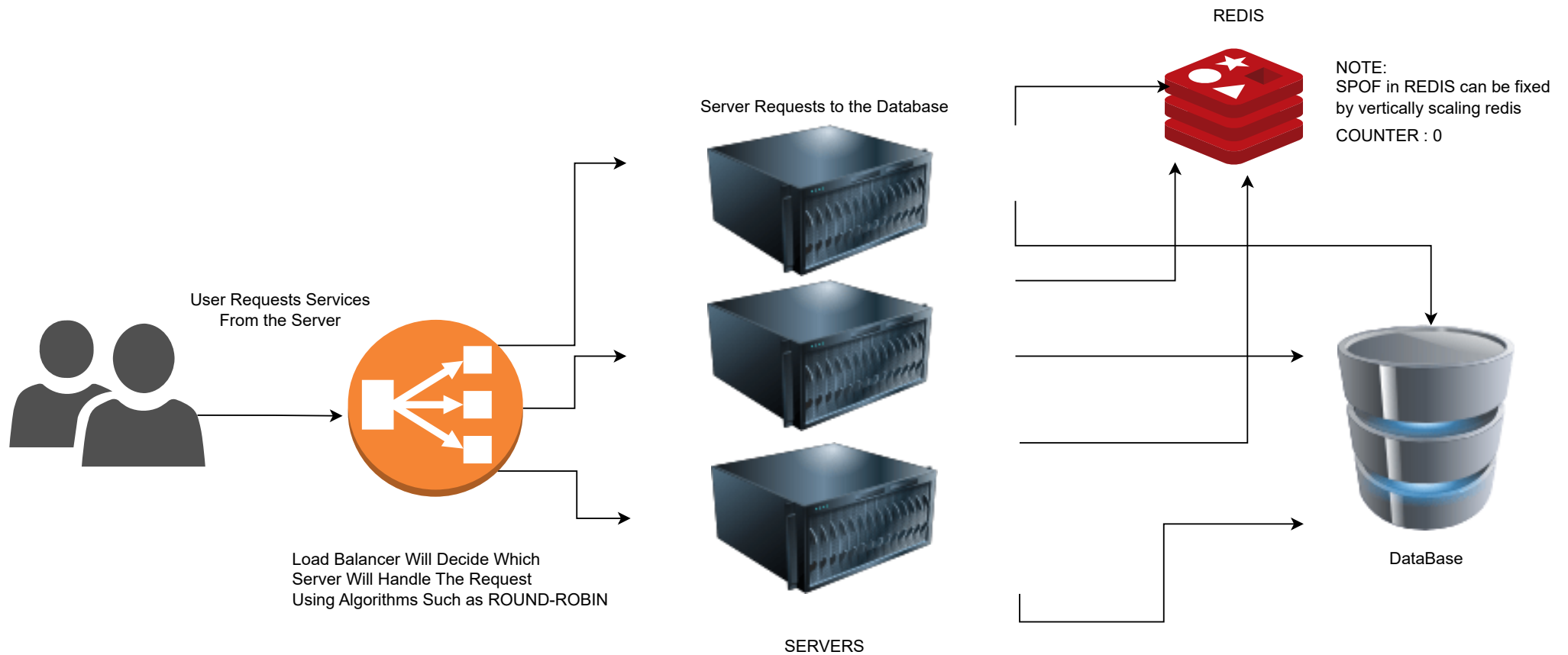




To resolve DB Lookup We use Counters to handle collisions







NOTE:

Using a fast cache like REDIS we can solve the problem of dirty read while maintaining low latency.