**1 Periodic Statistics Improvement**

Some of our APIs have to do with computing periodic statistics. Every time these APIs are invoked, we need to aggregate a range of numbers. To improvement performance, we don’t want to recompute the range aggregation everytime the API is invoked. The idea is to have dedicated background threads that run periodically and aggregate the results in advanced and save them in a stable storage or memory.

**2 High Availability and Disaster Recoverability**

Any modern web application will need to have high availability and disaster recoverability. The idea of achieving high availability is to remove single point of failure by introducing redundancies. We would want to have multiple servers load balancing each other so failure from one server will not impact the availability of the service. A system that’s disaster recoverable is a system with replica of stable storage in case of data center shutdown. So, our web application will need to have a replica of database constantly in sync with the main active database.