

## **Assumptions and Solutions**

1. That the systems is serving multiple users and it's experiencing high network requests
  - a. This requires that we have a load balancer that will distribute traffic across the available applications servers
  - b. This requires that we have a group of auto scaling servers that will enable us scale up and down efficiently to server our users best within the required company budgets
2. That the system requires to be fault tolerant and hence high availability is needed
  - a. This requires that we have redundant application, database and file servers, at least more than one depending on the current network traffic
3. That the system needs to offer fast access to users
  - a. This requires that we have a group of servers that will share together all user requests
4. That the system will be handling a lot of files and the files will need fast access
  - a. Use of a CDN to cache and deliver files as close to the user as possible
  - b. To ensure that file backup is independent of DB backup
  - c. To reduce a lot of work from the database servers
  - d. To reduce Database Costs
5. That some of the user requests to the system will be frequents
  - a. Use of a caching layer to retrieve the frequent application data instead of going to the DB always

**Explain the reasoning behind the decision of where you are going to store the submitted photos.**

- b. To allow use of a CDN to cache and deliver files as close to the user as possible
- c. To ensure that file backup is independent of DB backup
- d. To reduce a lot of work from the database servers
- e. To reduce Database Costs