

## **Multithreading**

A file server receives requests via a network. It takes 10 ms to dispatch the requested data and do the necessary processing, assuming that the data needed are in the disk cache. When there is a cache miss, as is the case in one quarter of the time, 40 ms is required to read the requested data from the hard disk into main memory (during which time the thread is blocked).

1. How many requests/sec can the server handle if it is single threaded?
2. How many requests/sec can the server handle if it is multithreaded (one thread popping up at each request)?