Quoteserver response time analysis

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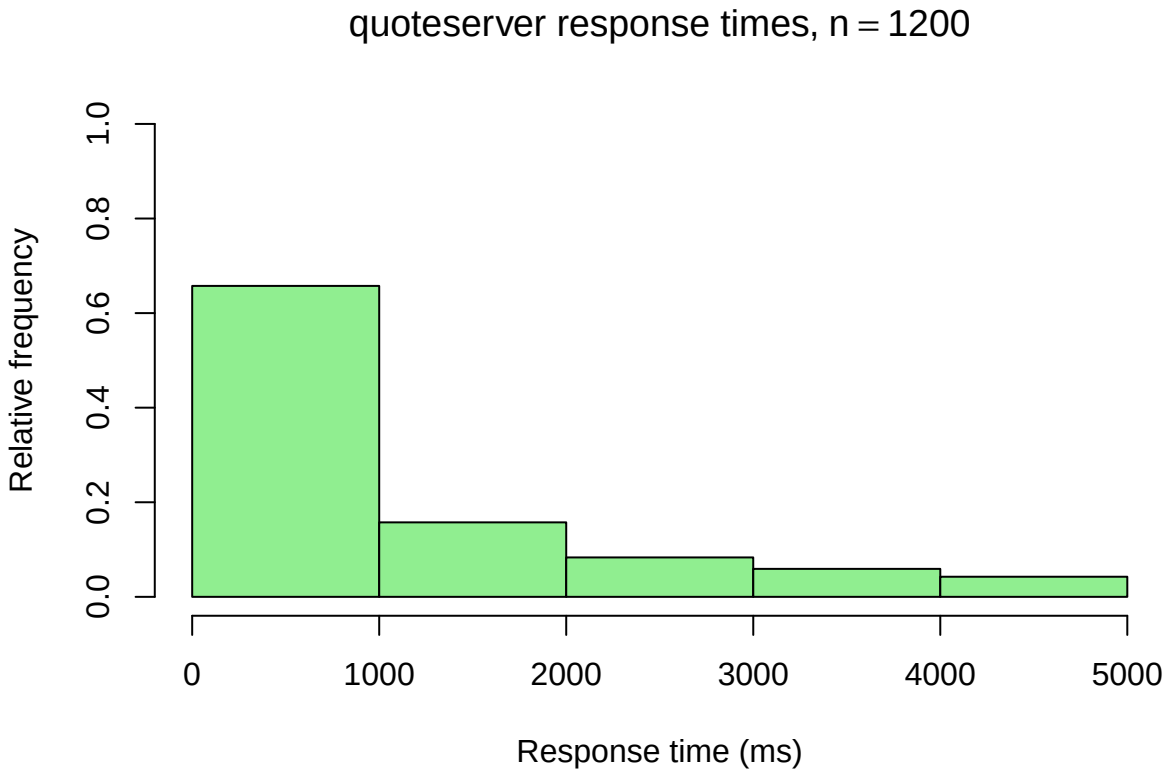
2017-03-12

We sent a large number of request to `quoteserve.seng.uvic.ca:4443` and recorded the delay of the response.



The expected response time is

```
ev = weighted.mean(h$counts, (h$counts / sum(h$counts)))
```

The above historgram uses one second buckets and hides the fact that the delays are clustered after whole second values. Removing the constant delay portion from each bucket yeilds the distribution of variable network and processing delays.

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##   7.000   9.000   9.000   9.414  10.000  26.000
```

The tail values are

```
tail(sort(allDelays), 10)
```

```
##  [1] 16 16 16 16 16 16 17 17 20 26
```

Choosing an initial response timeout of 20 milliseconds and 5 millisecond exponential backoff requires 4 iterations to exceed the expected delay. This event has a likelihood of 1.3761%. Exceeding 1 second total delay has a likelihood of 0.2545%