David Ostler & Santiago Verdu
CS 360
Professor Zappala

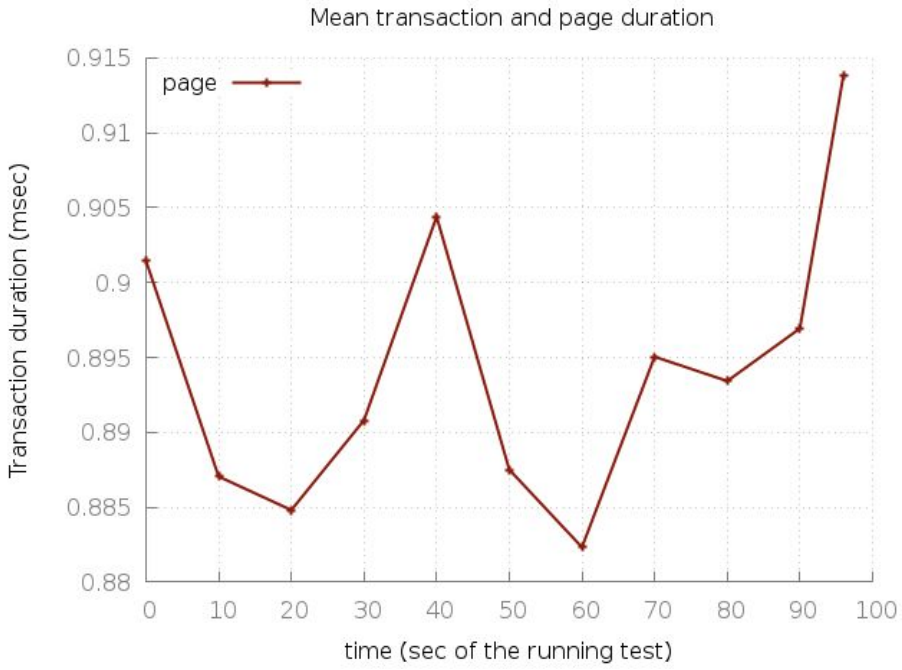
Web Server Lab Report

(Cover Page)

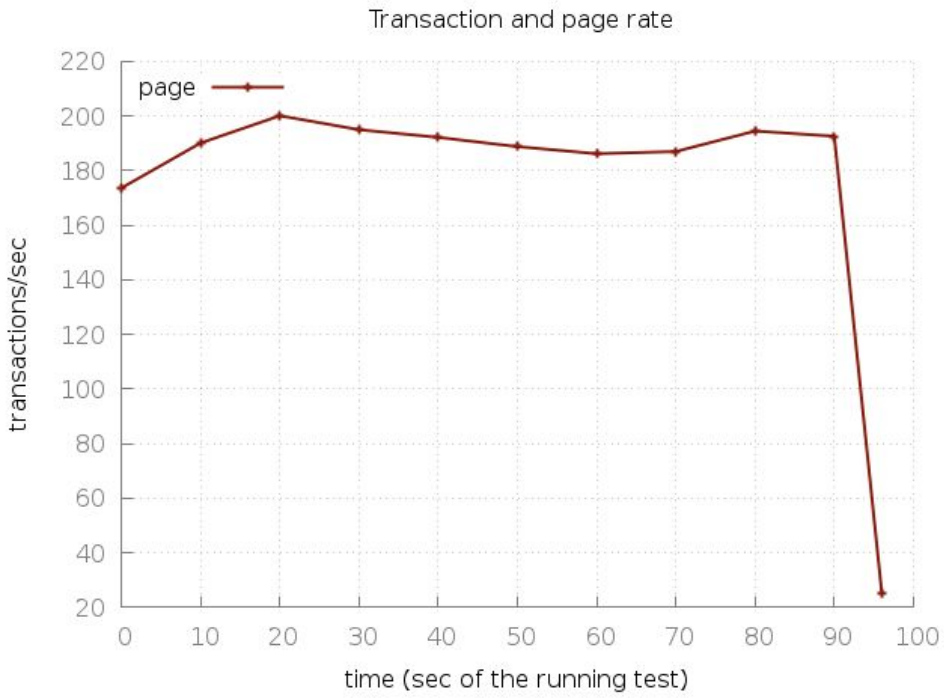
Our Python Server:

200 Requests/second

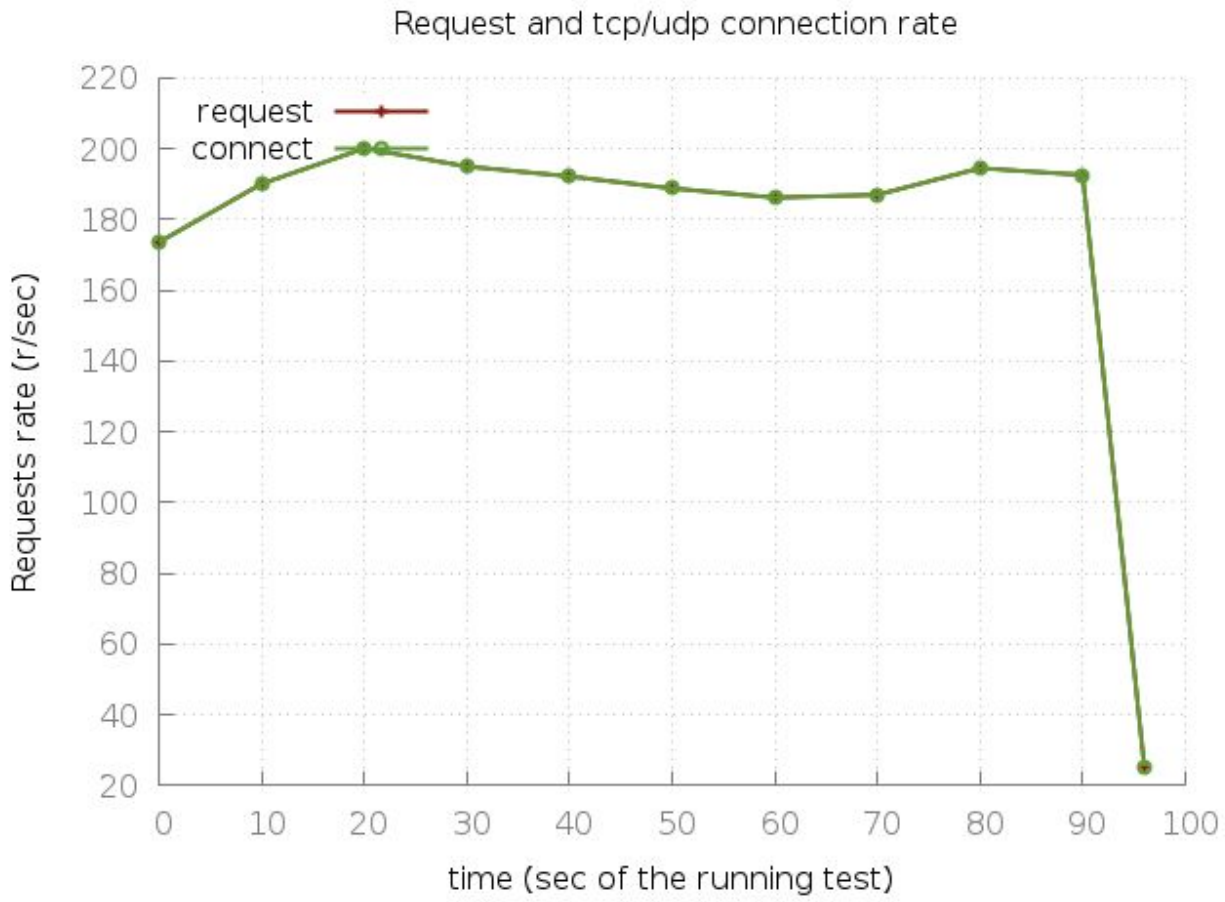
Mean transaction and page duration



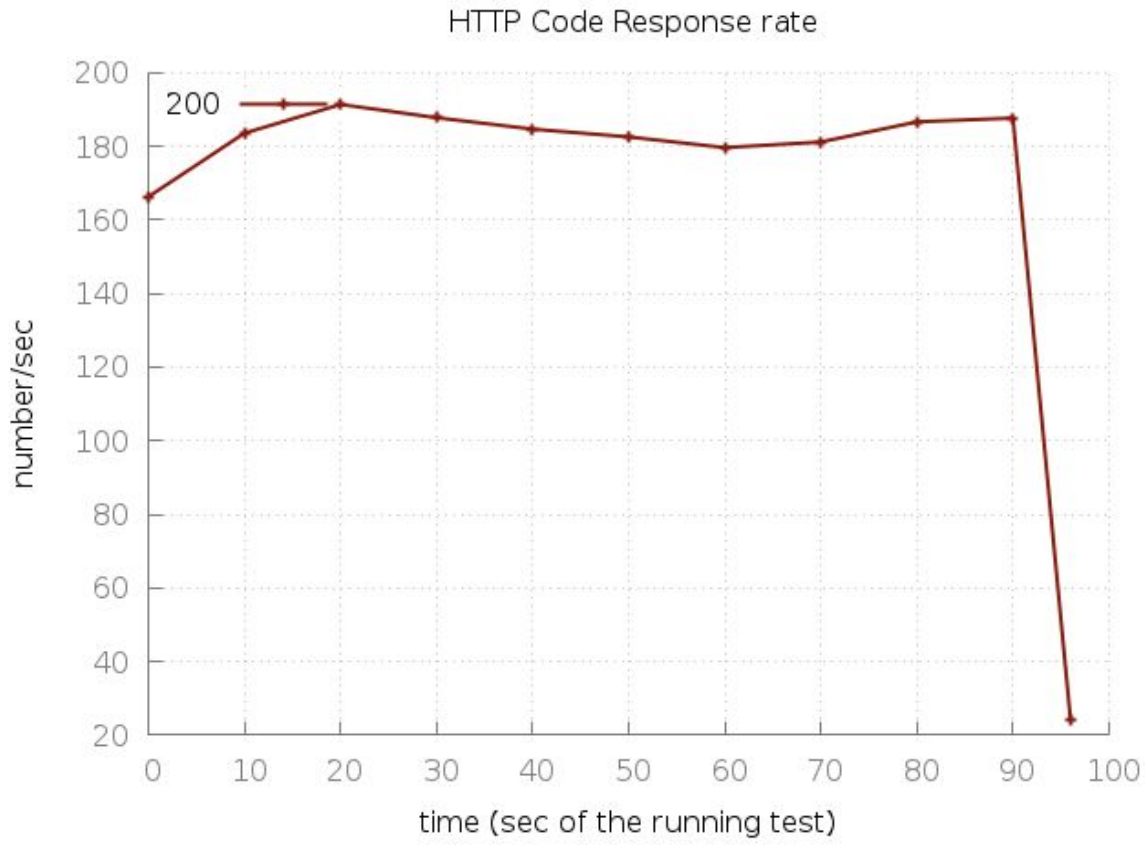
Transaction and page rate



Request and TCP/UDP connection rate



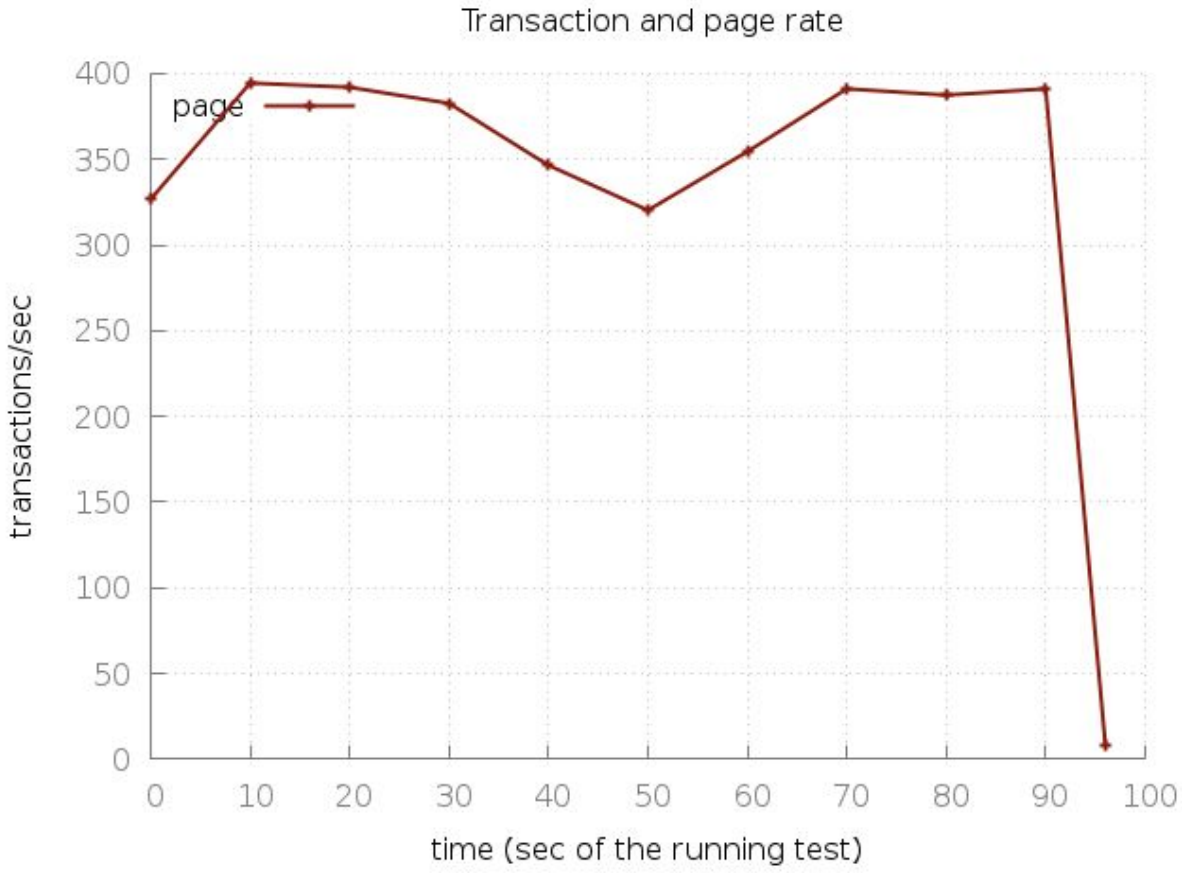
HTTP code response rate



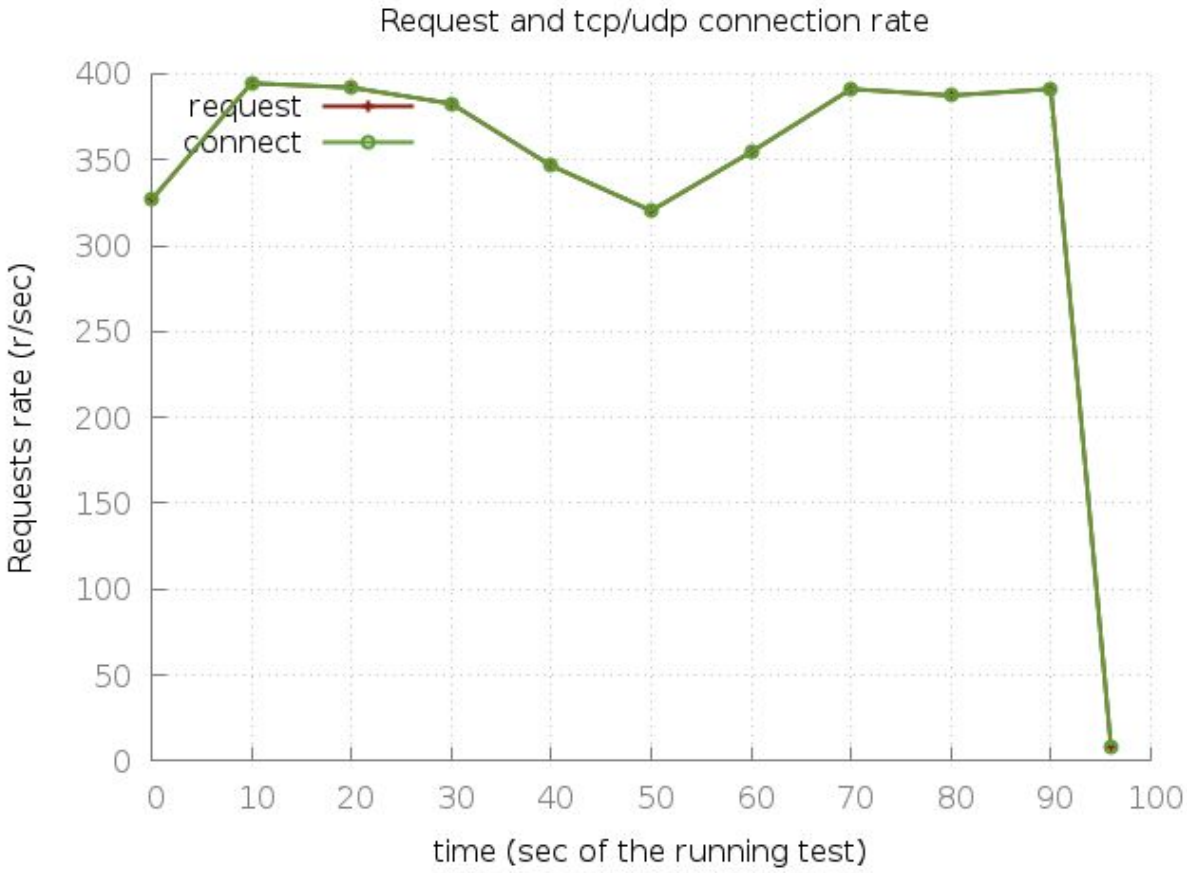
400 requests/second

Mean transaction and page duration

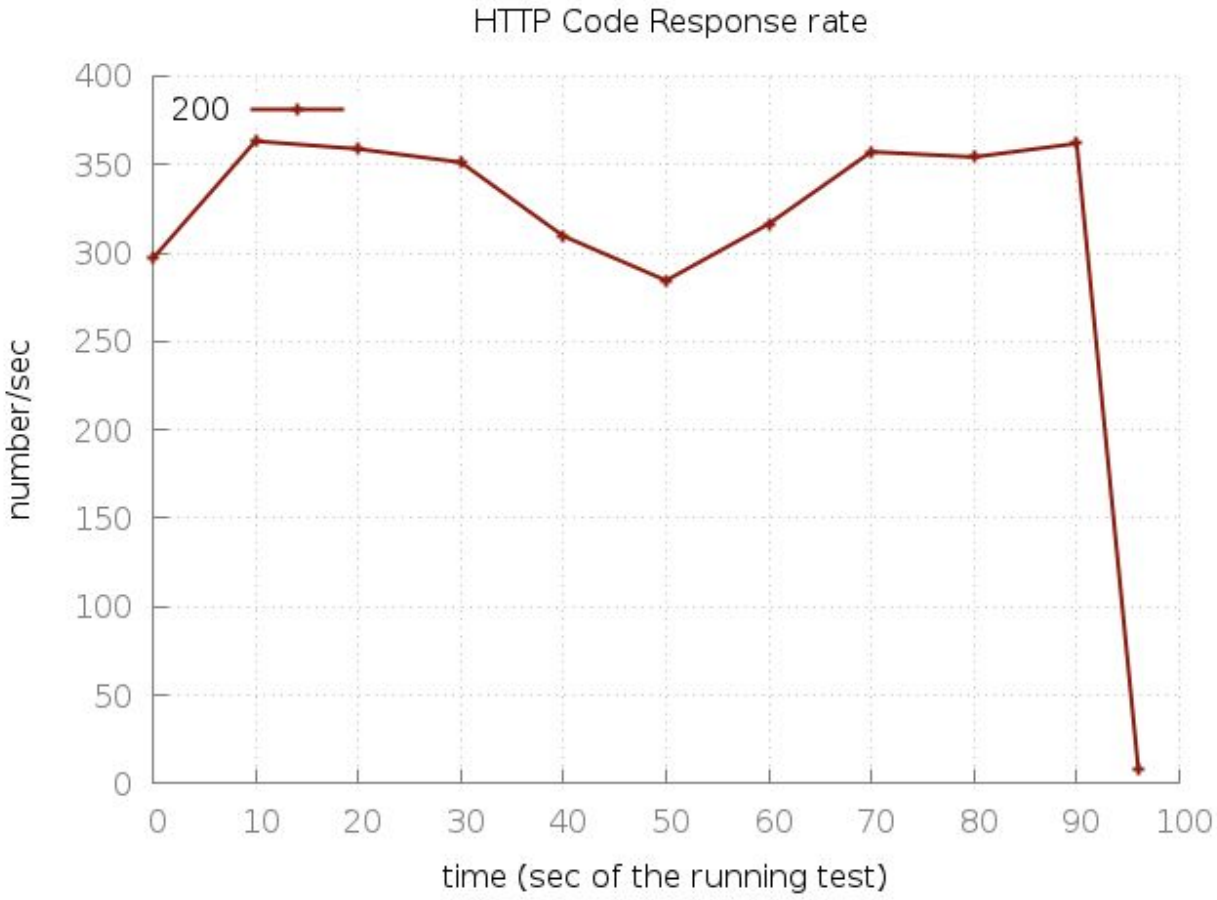
Transaction and page rate



Request and TCP/UDP connection rate

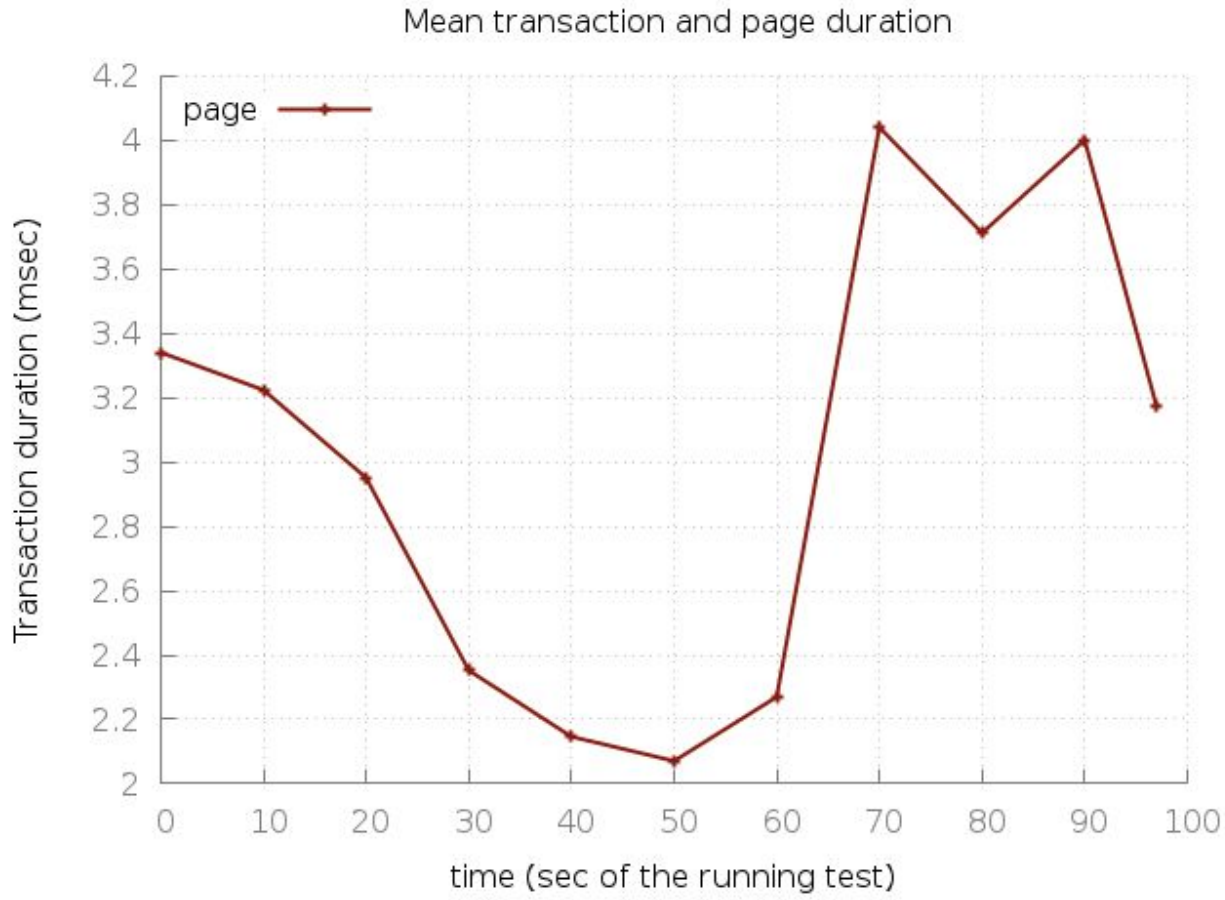


HTTP code response rate

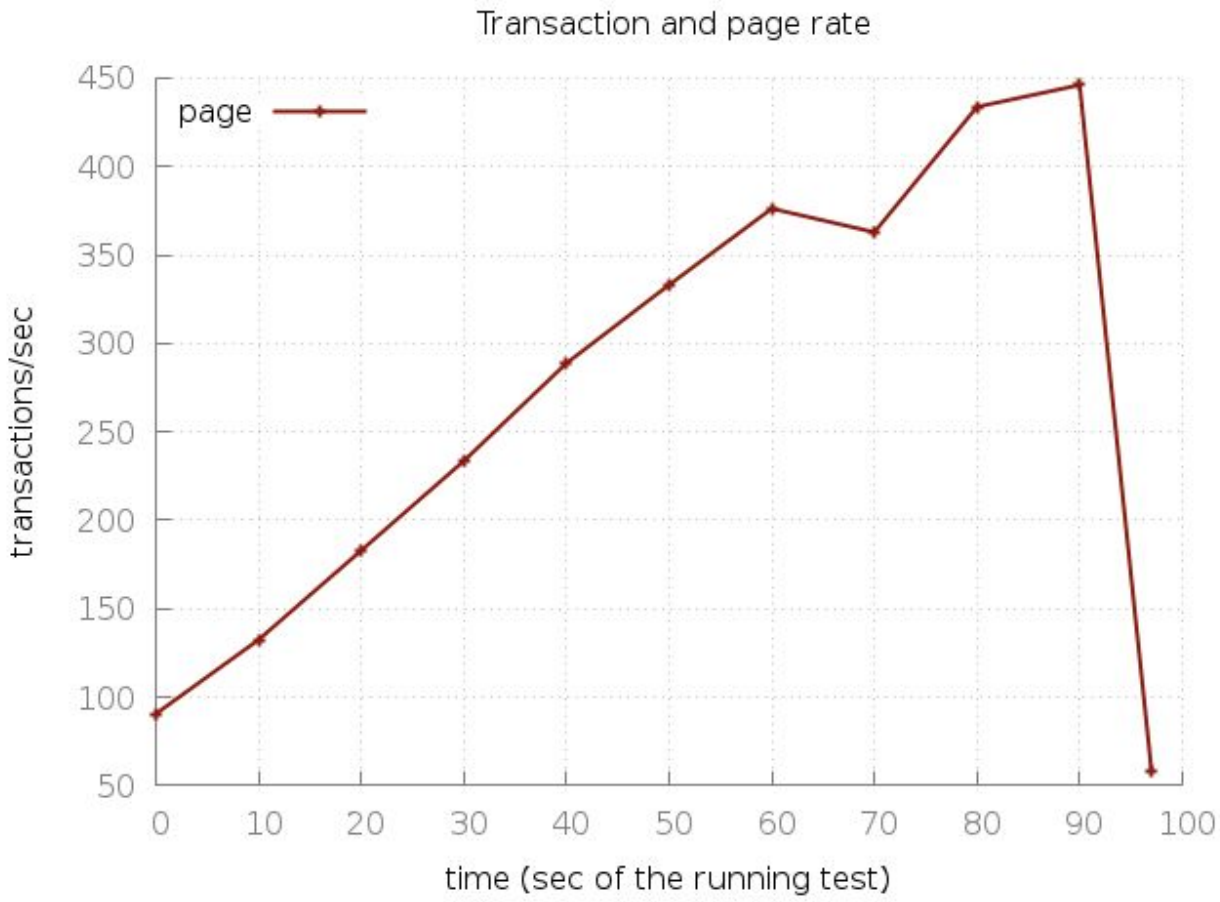


Increasing load

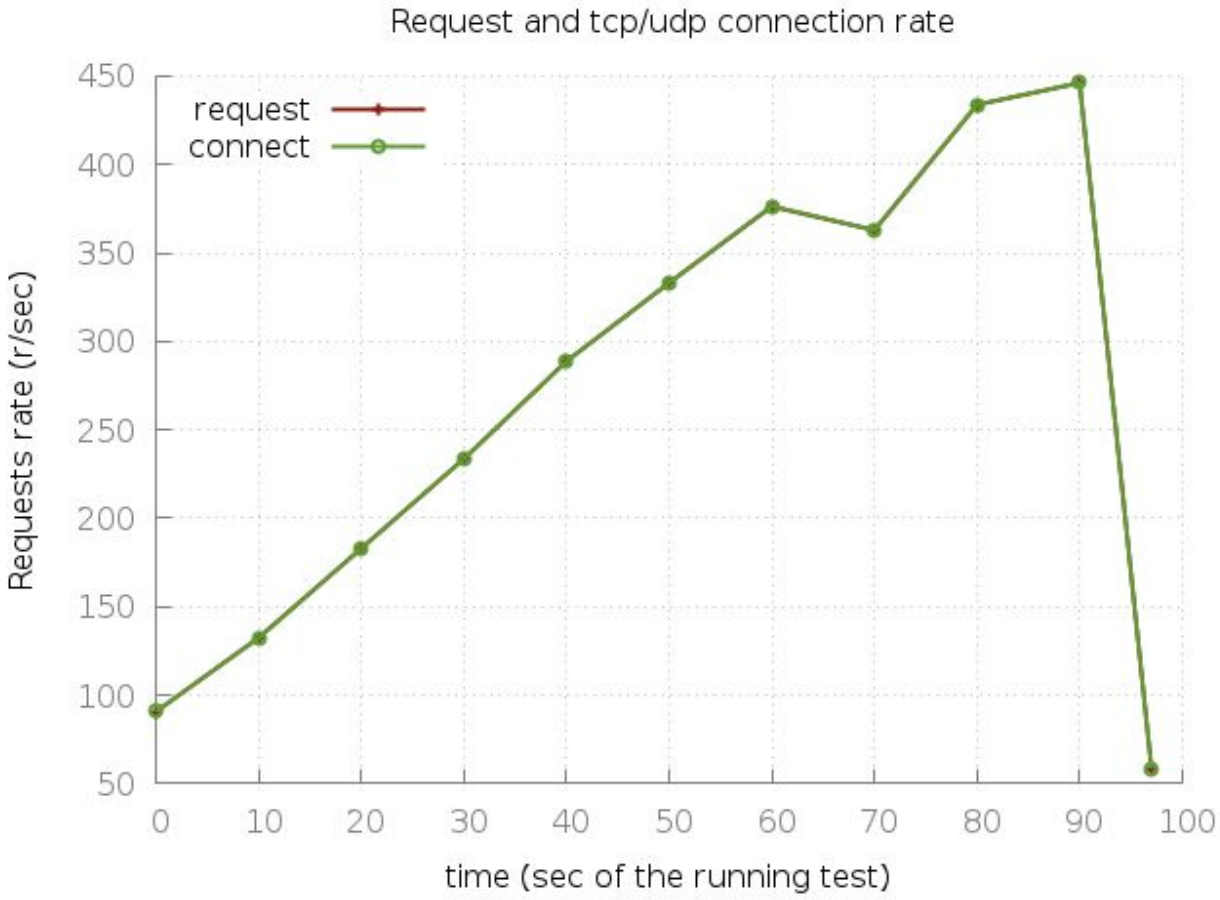
Mean transaction and page duration



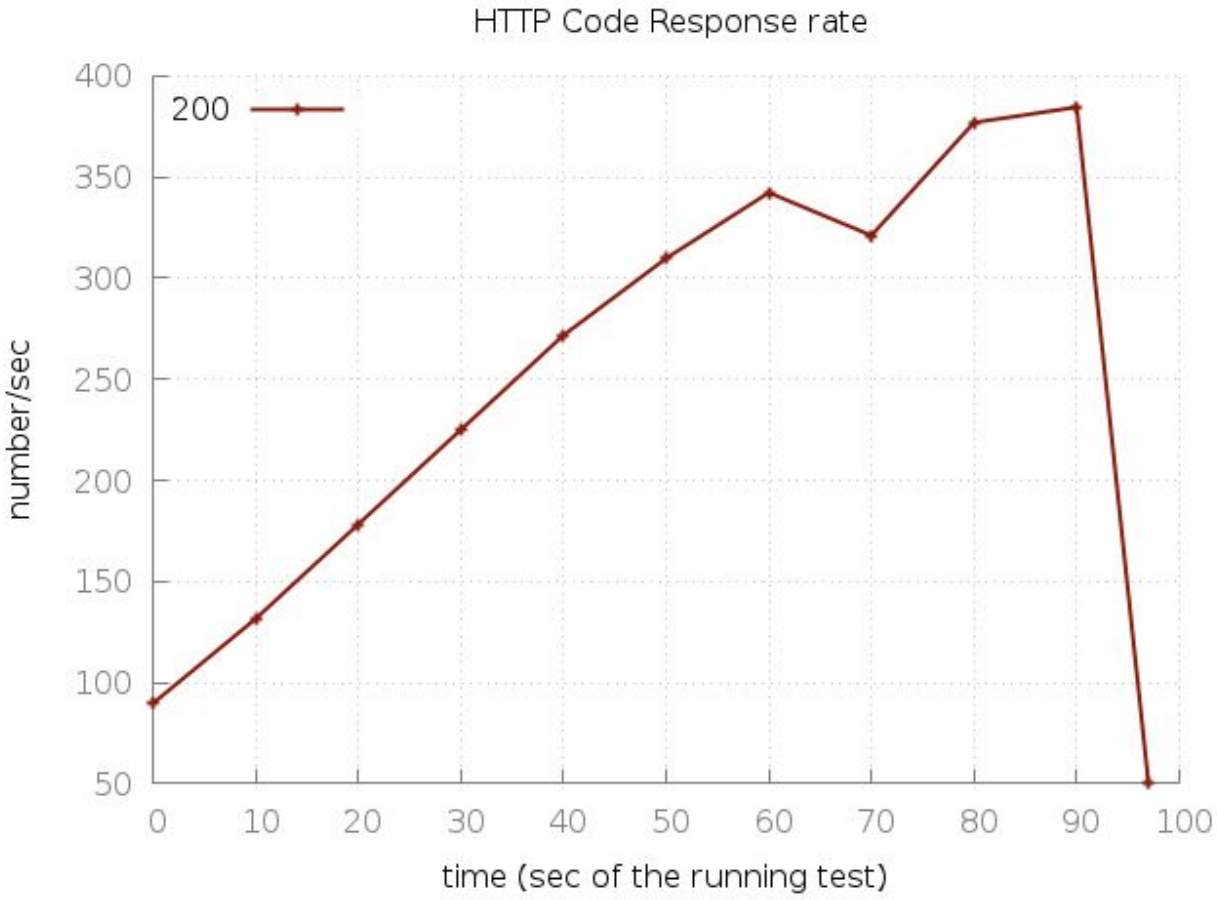
Transaction and page rate



Request and TCP/UDP connection rate



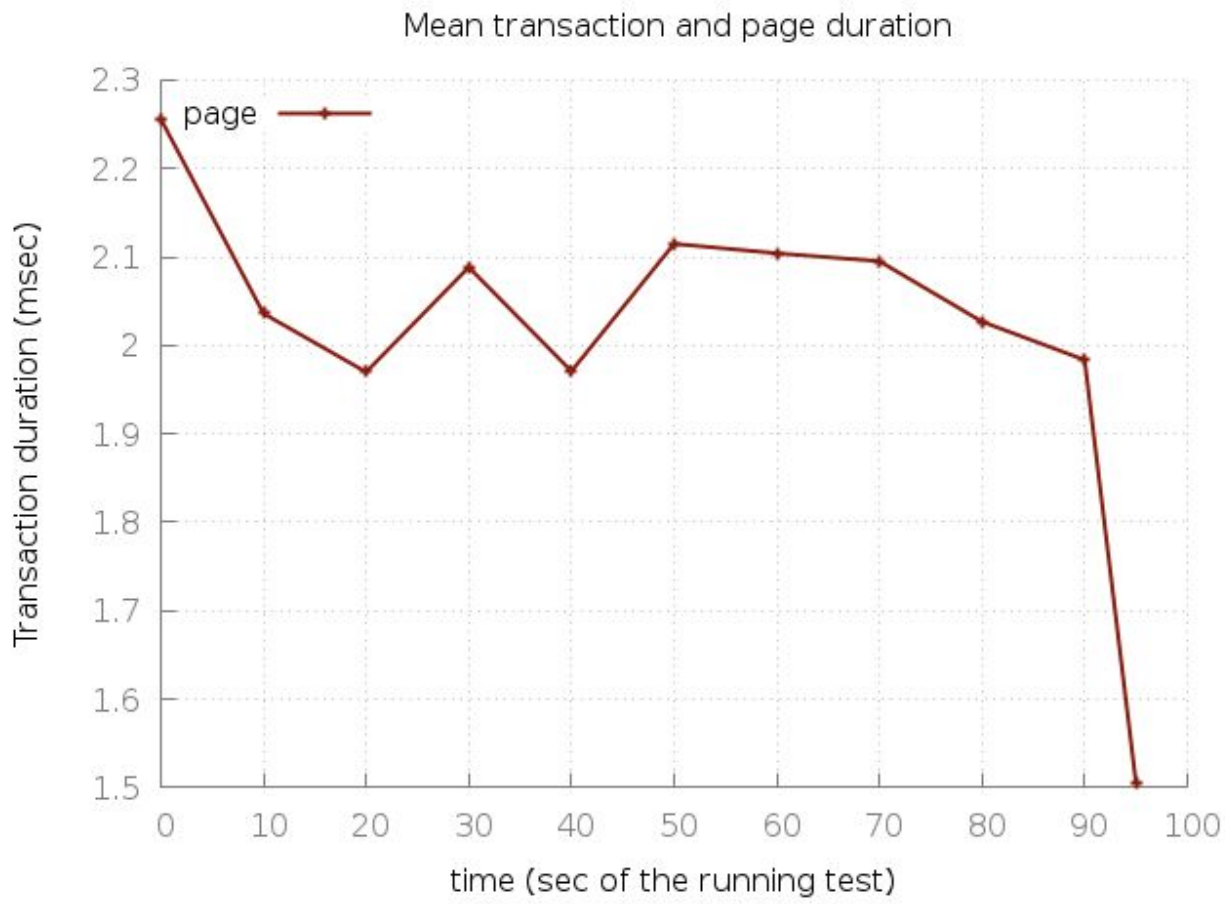
HTTP code response rate



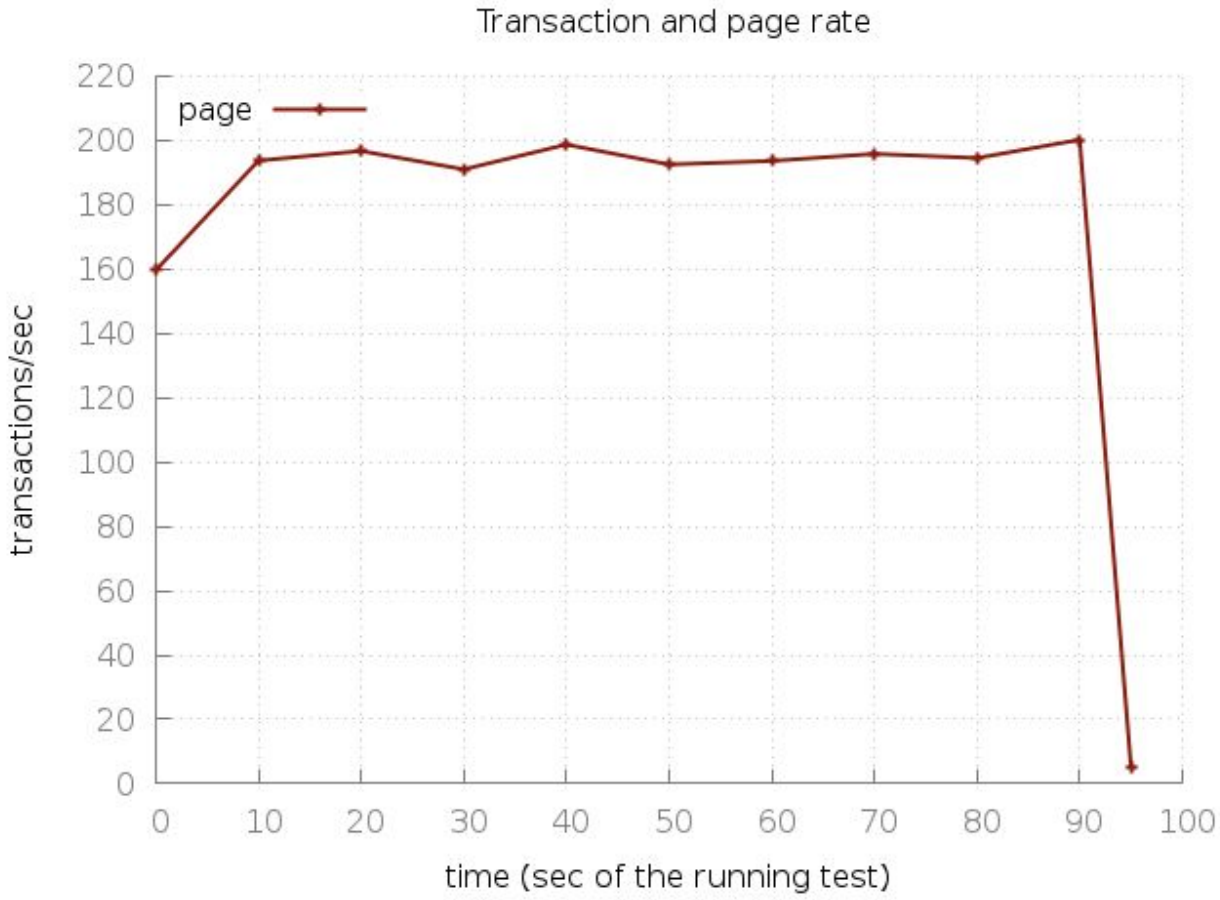
NGINX Server:

200 Requests/second

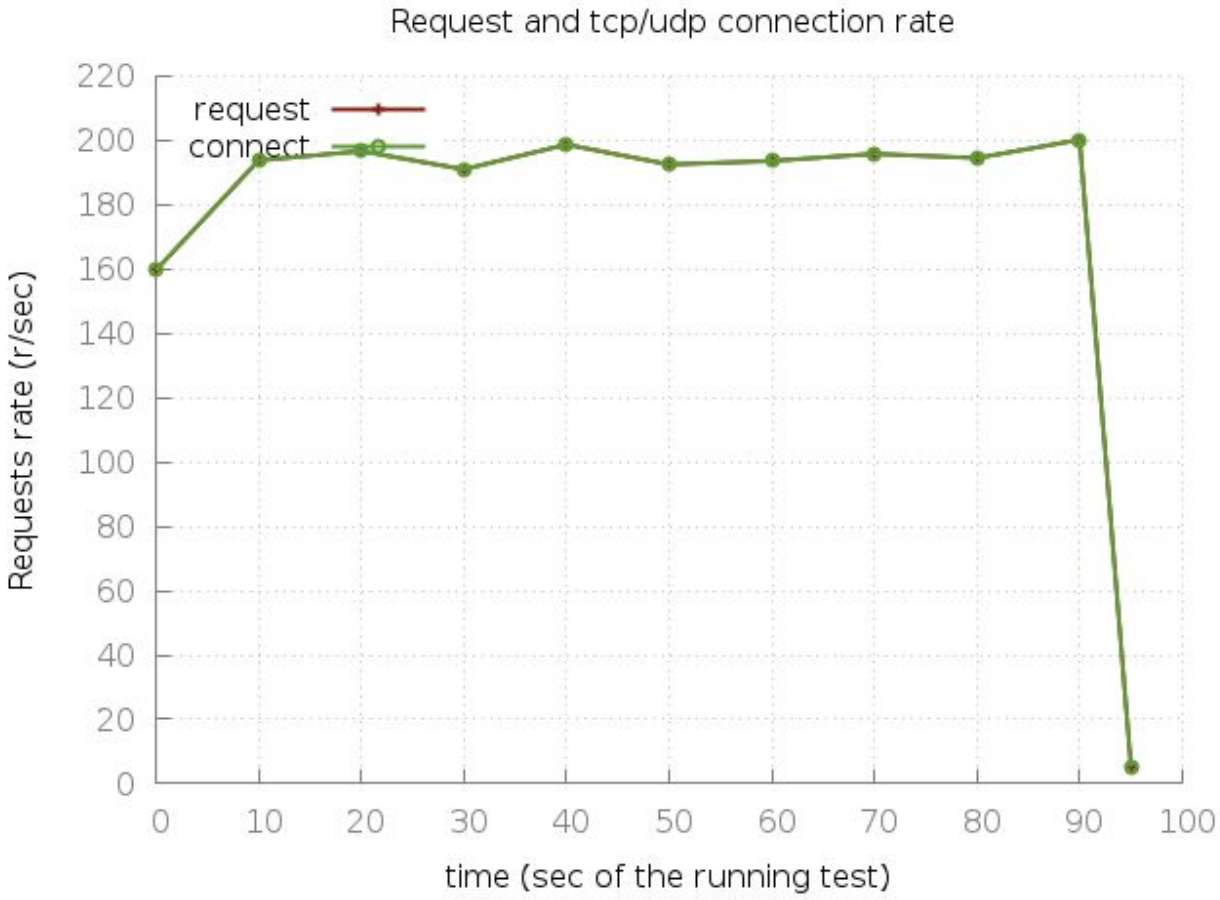
Mean transaction and page duration



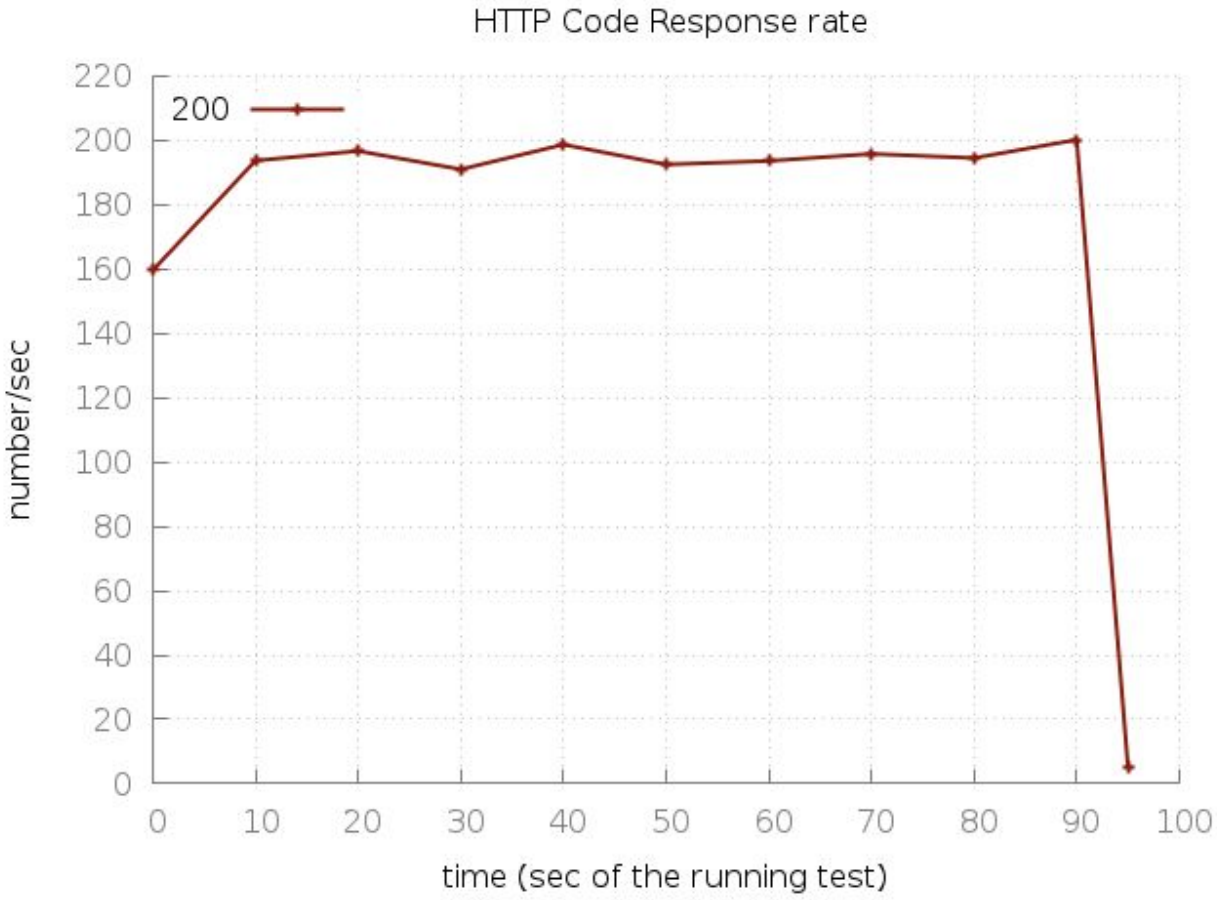
Transaction and page rate



Request and TCP/UDP connection rate



HTTP code response rate



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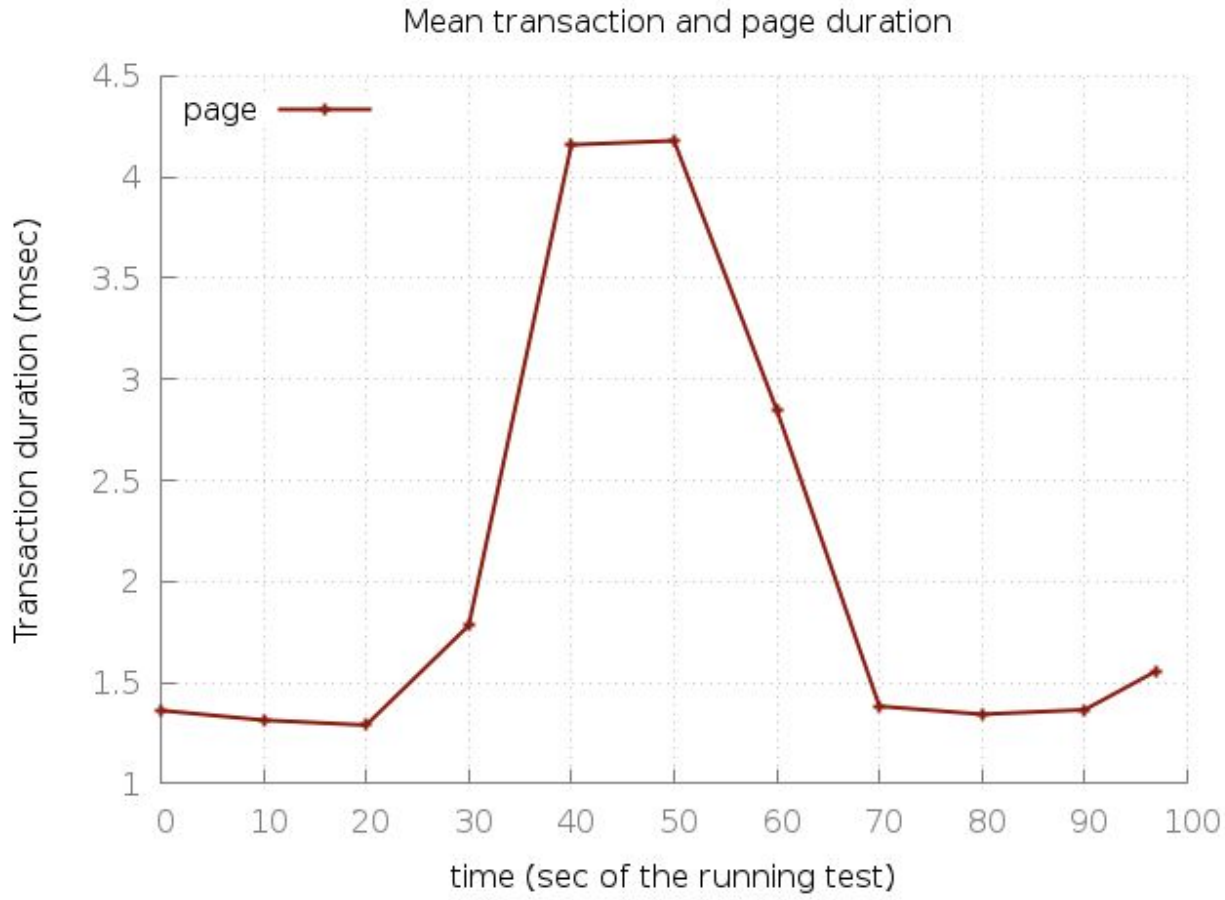
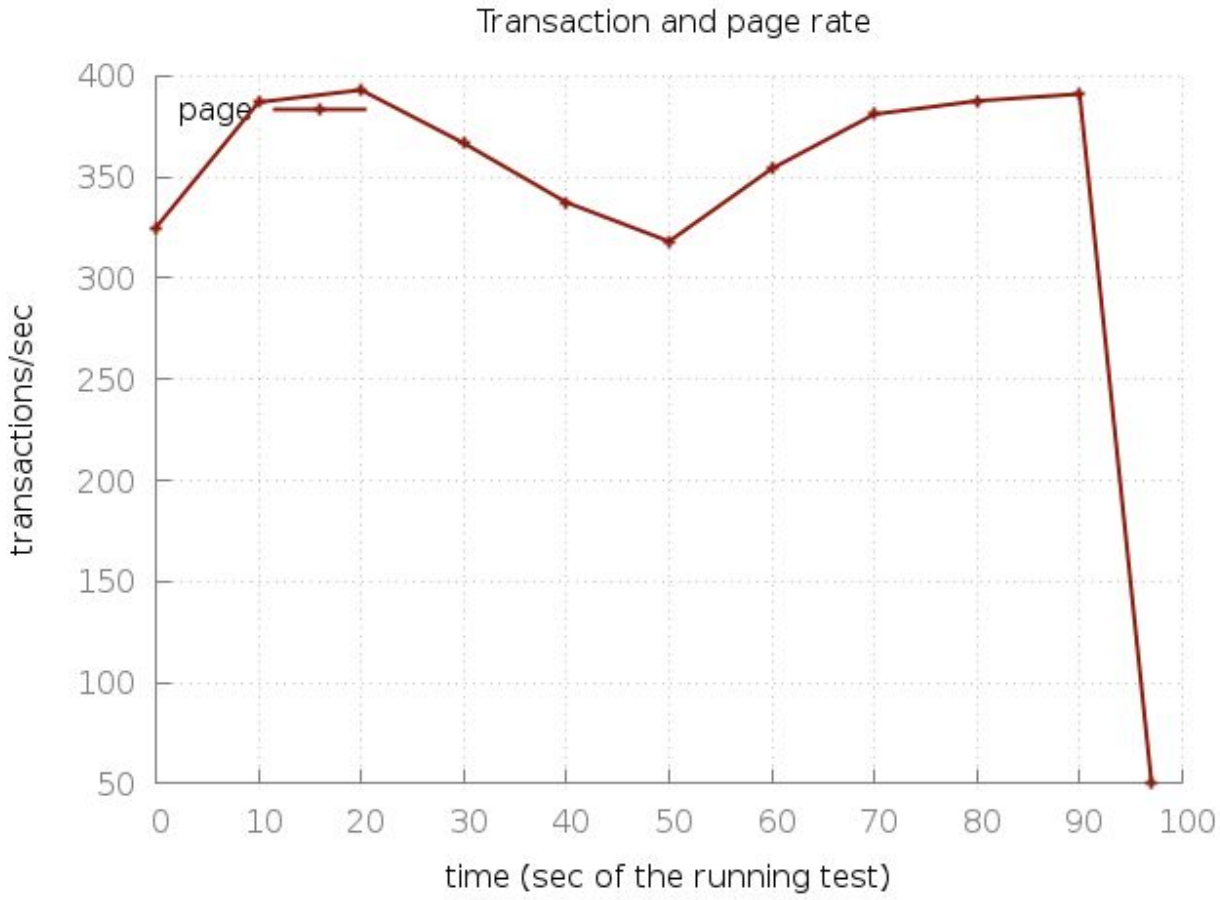
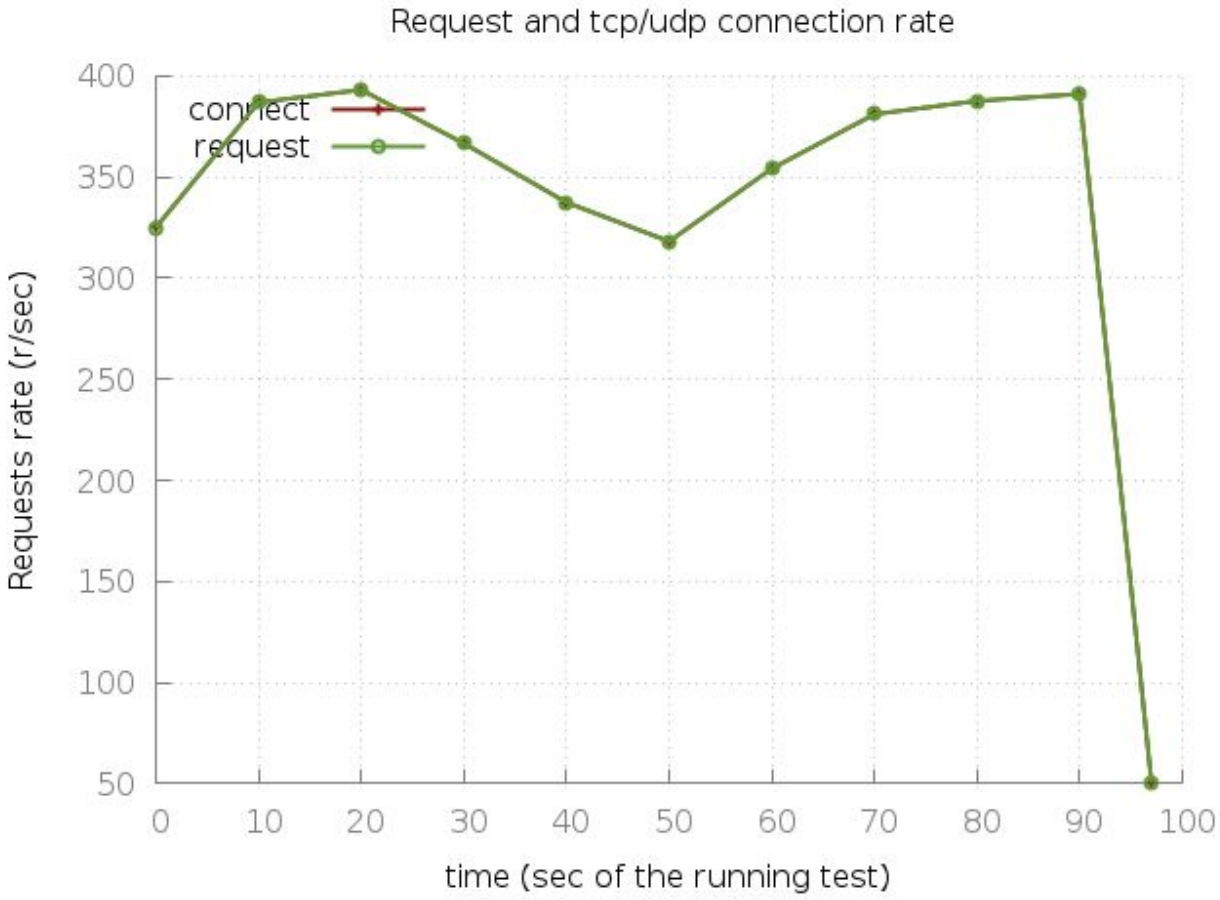


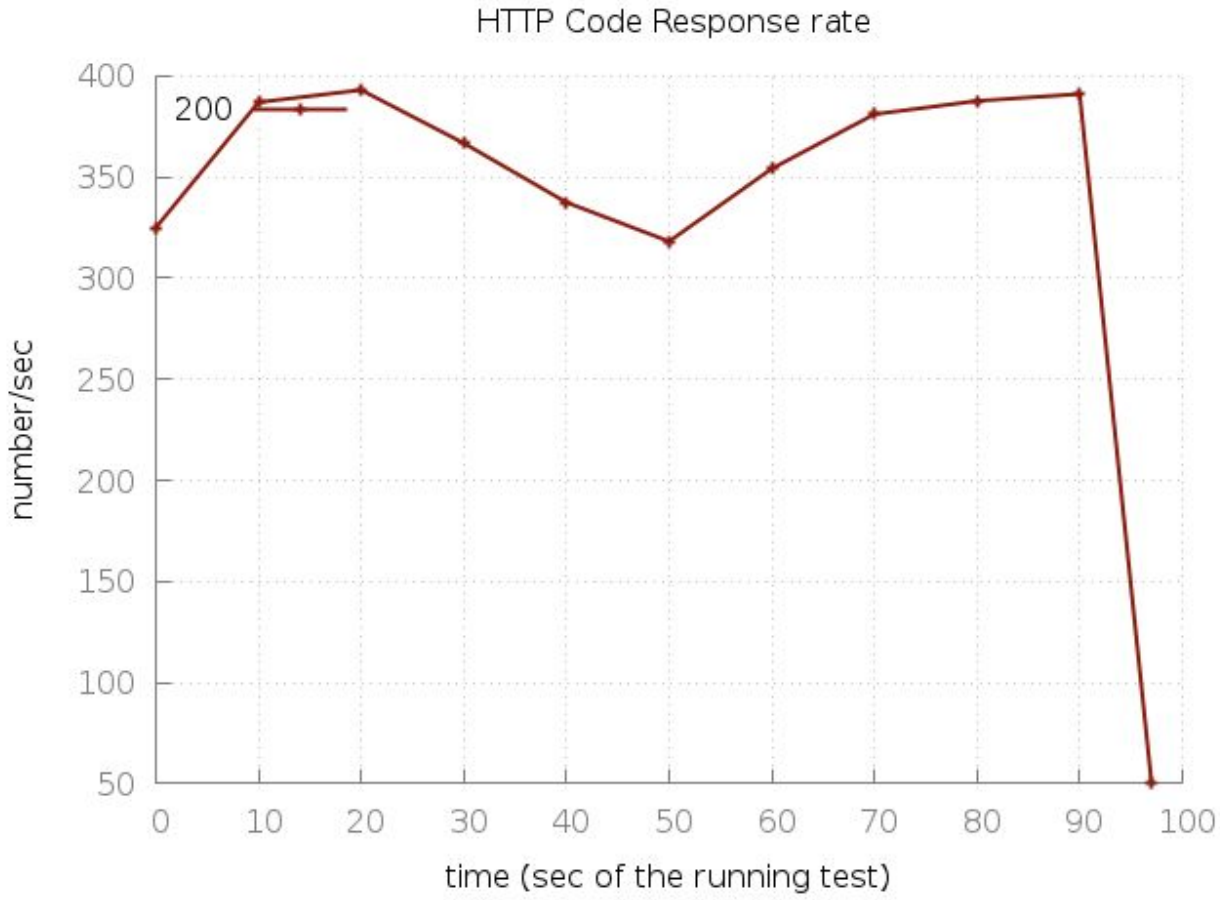
Transaction and page rate



Request and TCP/UDP connection rate

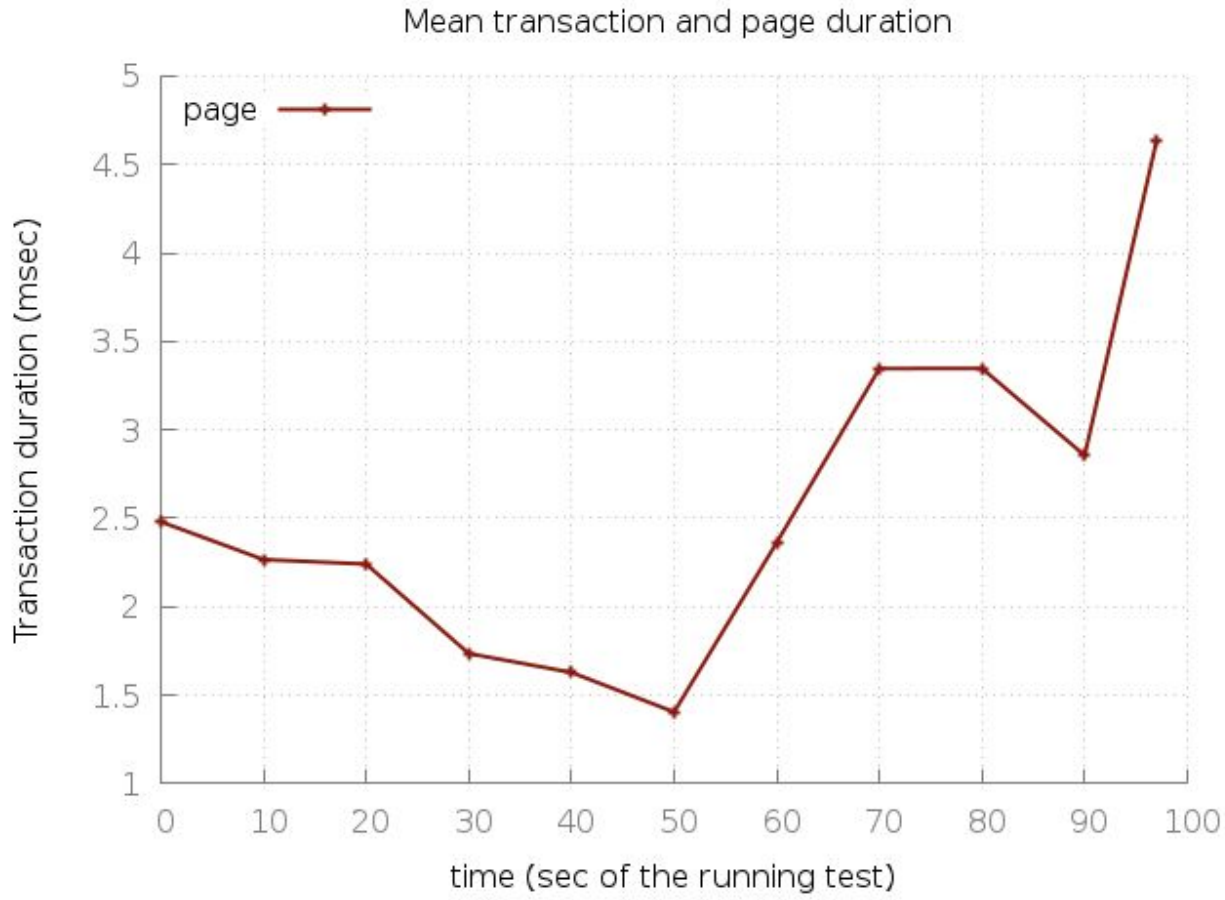


HTTP code response rate

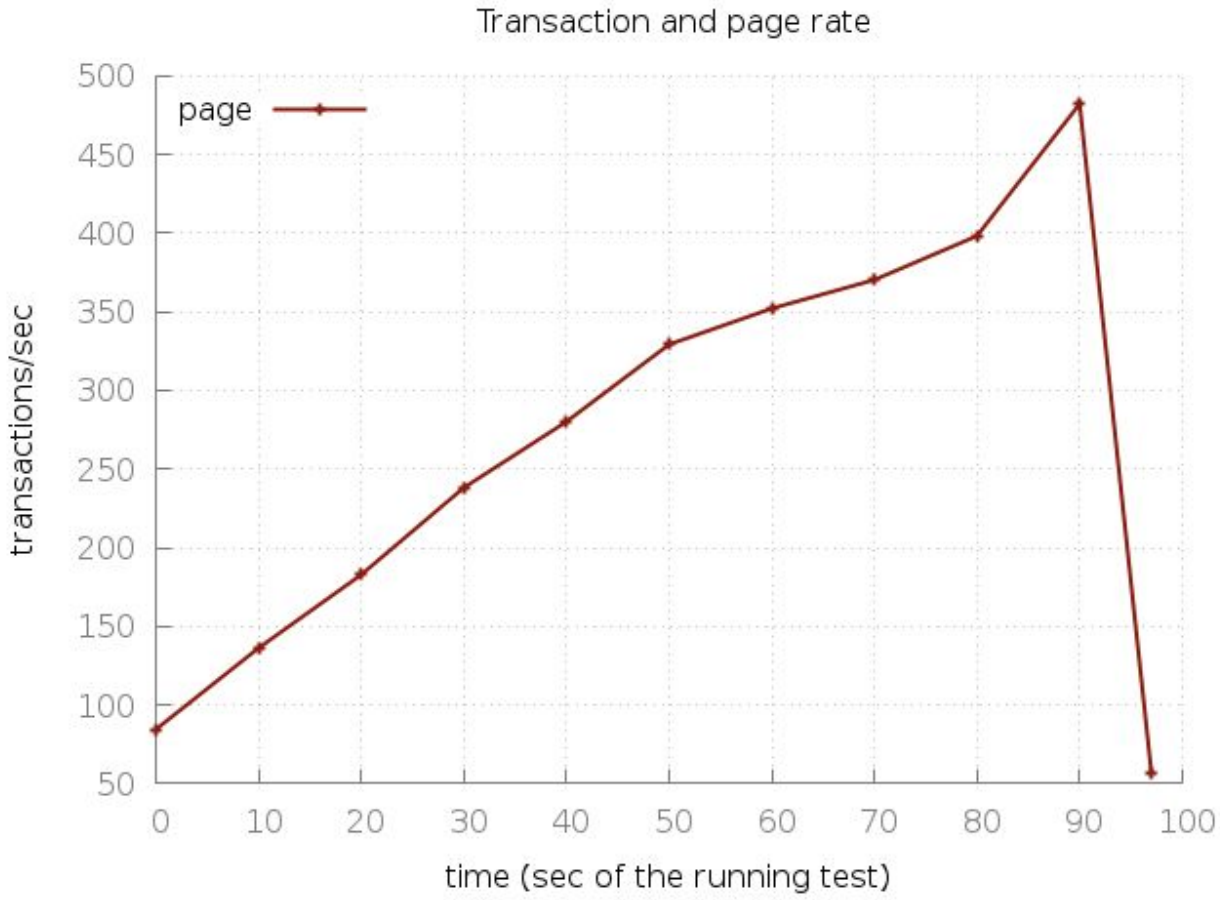


Increasing load

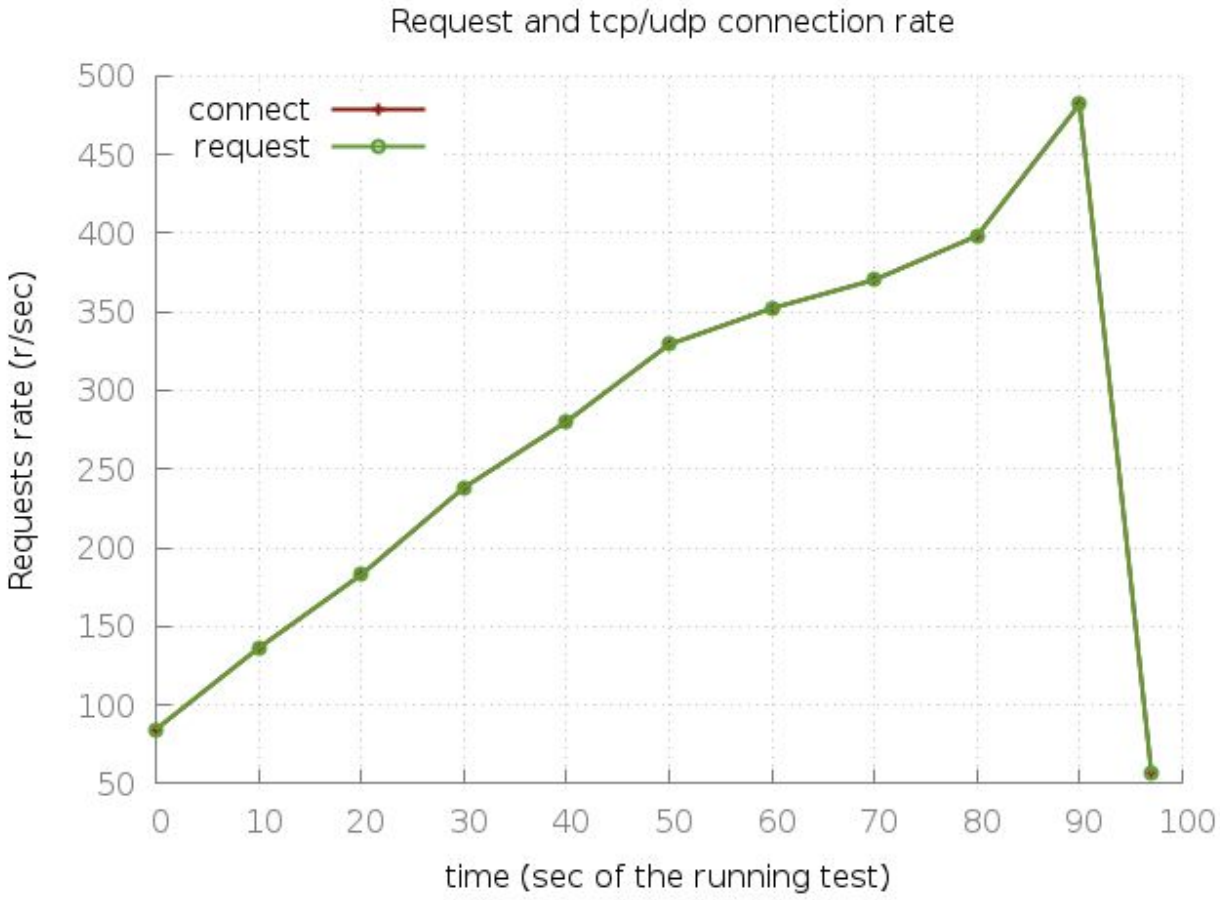
Mean transaction and page duration



Transaction and page rate



Request and TCP/UDP connection rate



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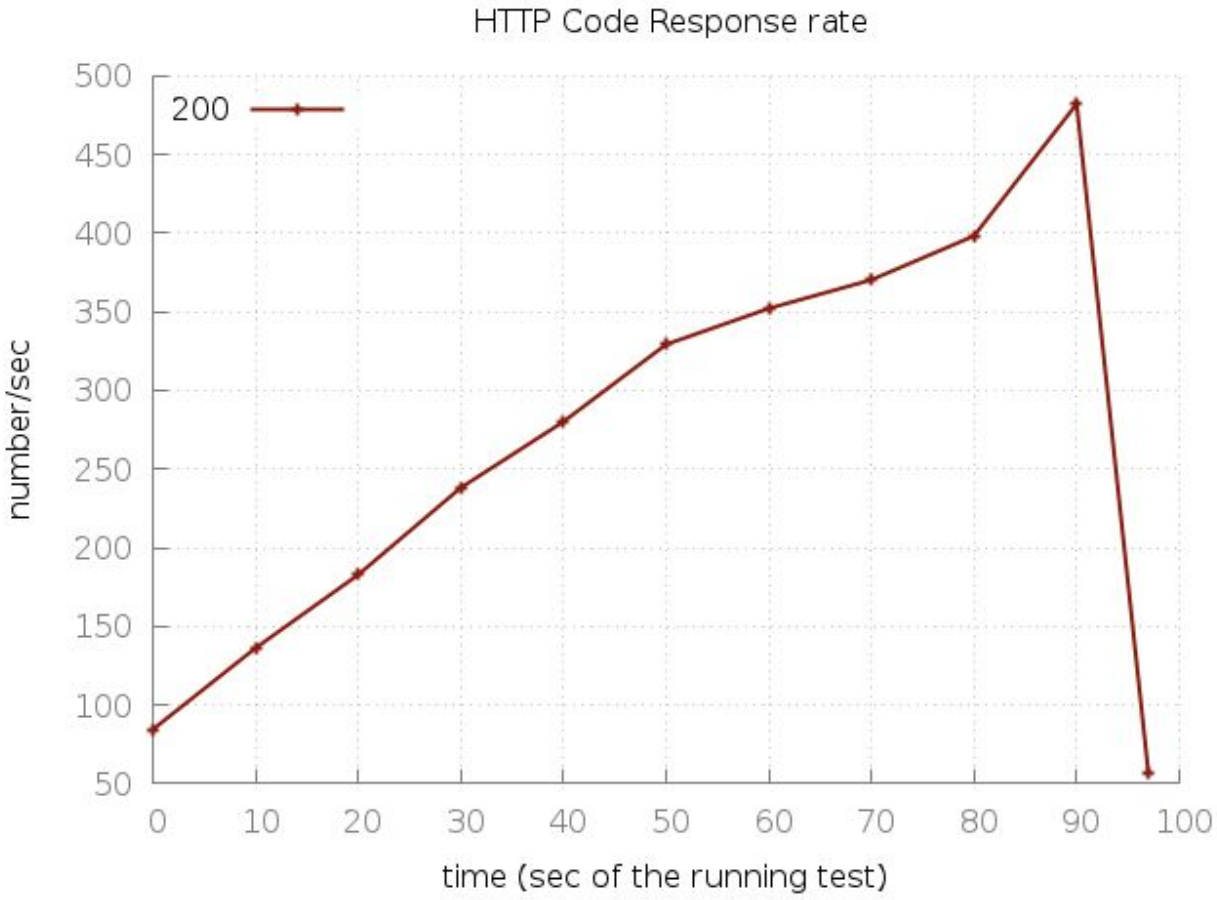

Our Python Server vs NGINX Server:

According to the stress testing metrics that we used, our server ran quite a bit faster than the NGINX server for many of the tests. Across all of the tests, it was faster or very similar to the NGINX server performance. However, in a few high load cases, it seemed that the NGINX server had some optimizations to handle different size loads.

Overall, we hypothesize that our server ran faster than NGINX under most conditions as our limited functionality server increased throughput. Our architecture also excluded many of the security enhancements one would come to expect in an industrial strength server solution.