## When slow service takes 200ms

## Spring Boot 2

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---- Global Information --------------------------------------------------------

> request count 20000 (OK=20000 KO=0 )

> min response time 204 (OK=204 KO=- )

> max response time 13278 (OK=13278 KO=- )

> mean response time 2989 (OK=2989 KO=- )

> std deviation 2239 (OK=2239 KO=- )

> response time 50th percentile 3309 (OK=3311 KO=- )

> response time 75th percentile 4098 (OK=4098 KO=- )

> response time 95th percentile 6935 (OK=6935 KO=- )

> response time 99th percentile 10355 (OK=10355 KO=- )

> mean requests/sec 625 (OK=625 KO=- )

---- Response Time Distribution ------------------------------------------------

> t < 800 ms 5120 ( 26%)

> 800 ms < t < 1200 ms 1132 ( 6%)

> t > 1200 ms 13748 ( 69%)

> failed 0 ( 0%)

## Spring WebFlux

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---- Global Information --------------------------------------------------------

> request count 20000 (OK=20000 KO=0 )

> min response time 202 (OK=202 KO=- )

> max response time 1186 (OK=1186 KO=- )

> mean response time 268 (OK=268 KO=- )

> std deviation 87 (OK=87 KO=- )

> response time 50th percentile 239 (OK=239 KO=- )

> response time 75th percentile 286 (OK=286 KO=- )

> response time 95th percentile 409 (OK=409 KO=- )

> response time 99th percentile 634 (OK=634 KO=- )

> mean requests/sec 952.381 (OK=952.381 KO=- )

---- Response Time Distribution ------------------------------------------------

> t < 800 ms 19860 ( 99%)

> 800 ms < t < 1200 ms 140 ( 1%)

> t > 1200 ms 0 ( 0%)

> failed 0 ( 0%)

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# When slow service takes 10ms per request

## Spring boot 2

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---- Global Information --------------------------------------------------------

> request count 20000 (OK=19538 KO=462 )

> min response time 0 (OK=13 KO=0 )

> max response time 31927 (OK=31927 KO=5201 )

> mean response time 1396 (OK=1418 KO=456 )

> std deviation 4320 (OK=4367 KO=561 )

> response time 50th percentile 142 (OK=139 KO=274 )

> response time 75th percentile 481 (OK=481 KO=510 )

> response time 95th percentile 9534 (OK=9702 KO=1633 )

> response time 99th percentile 27875 (OK=28229 KO=2202 )

> mean requests/sec 408.163 (OK=398.735 KO=9.429 )

---- Response Time Distribution ------------------------------------------------

> t < 800 ms 16288 ( 81%)

> 800 ms < t < 1200 ms 714 ( 4%)

> t > 1200 ms 2536 ( 13%)

> failed 462 ( 2%)

---- Errors --------------------------------------------------------------------

> status.find.is(201), but actually found 500 413 (89.39%)

> j.i.IOException: Connection reset by peer 49 (10.61%)

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## WebFlux

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---- Global Information --------------------------------------------------------

> request count 20000 (OK=19949 KO=51 )

> min response time 0 (OK=12 KO=0 )

> max response time 6796 (OK=6796 KO=0 )

> mean response time 152 (OK=152 KO=0 )

> std deviation 470 (OK=471 KO=0 )

> response time 50th percentile 40 (OK=40 KO=0 )

> response time 75th percentile 120 (OK=120 KO=0 )

> response time 95th percentile 499 (OK=500 KO=0 )

> response time 99th percentile 2728 (OK=2729 KO=0 )

> mean requests/sec 833.333 (OK=831.208 KO=2.125 )

---- Response Time Distribution ------------------------------------------------

> t < 800 ms 19384 ( 97%)

> 800 ms < t < 1200 ms 262 ( 1%)

> t > 1200 ms 303 ( 2%)

> failed 51 ( 0%)

---- Errors --------------------------------------------------------------------

> j.i.IOException: Connection reset by peer 51 (100.0%)

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# When registration service takes 400ms

## Spring MVC

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---- Global Information --------------------------------------------------------

> request count 20000 (OK=19819 KO=181 )

> min response time 0 (OK=403 KO=0 )

> max response time 39404 (OK=39404 KO=14256 )

> mean response time 7409 (OK=7430 KO=5118 )

> std deviation 5793 (OK=5796 KO=4961 )

> response time 50th percentile 6959 (OK=6967 KO=6483 )

> response time 75th percentile 7708 (OK=7703 KO=6937 )

> response time 95th percentile 19771 (OK=19821 KO=13862 )

> response time 99th percentile 31652 (OK=31653 KO=14049 )

> mean requests/sec 400 (OK=396.38 KO=3.62 )

---- Response Time Distribution ------------------------------------------------

> t < 800 ms 1095 ( 5%)

> 800 ms < t < 1200 ms 504 ( 3%)

> t > 1200 ms 18220 ( 91%)

> failed 181 ( 1%)

---- Errors --------------------------------------------------------------------

> status.find.is(201), but actually found 500 106 (58.56%)

> j.i.IOException: Connection reset by peer 75 (41.44%)

## Flux

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---- Global Information --------------------------------------------------------

> request count 20000 (OK=20000 KO=0 )

> min response time 402 (OK=402 KO=- )

> max response time 1256 (OK=1256 KO=- )

> mean response time 493 (OK=493 KO=- )

> std deviation 100 (OK=100 KO=- )

> response time 50th percentile 456 (OK=456 KO=- )

> response time 75th percentile 532 (OK=531 KO=- )

> response time 95th percentile 679 (OK=679 KO=- )

> response time 99th percentile 883 (OK=883 KO=- )

> mean requests/sec 952.381 (OK=952.381 KO=- )

---- Response Time Distribution ------------------------------------------------

> t < 800 ms 19608 ( 98%)

> 800 ms < t < 1200 ms 390 ( 2%)

> t > 1200 ms 2 ( 0%)

> failed 0 ( 0%)

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# When two service calls are made with each taking 400ms

## Spring MVC [(Report link)](file:///Users/moeenahmadtahir/Documents/Projects/spring-boot-1-vs-2-performance/perf-test-with-gatling/SavedReports/bootloadsimulation-1534762438819/index.html)

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## ---- Global Information --------------------------------------------------------

## > request count 20000 (OK=19722 KO=278 )

## > min response time 0 (OK=810 KO=0 )

## > max response time 34747 (OK=34747 KO=16917 )

## > mean response time 16885 (OK=16993 KO=9264 )

## > std deviation 5515 (OK=5436 KO=5716 )

## > response time 50th percentile 18675 (OK=18725 KO=11162 )

## > response time 75th percentile 20069 (OK=20113 KO=13728 )

## > response time 95th percentile 20493 (OK=20494 KO=16210 )

## > response time 99th percentile 29918 (OK=29952 KO=16772 )

## > mean requests/sec 229.885 (OK=226.69 KO=3.195 )

## ---- Response Time Distribution ------------------------------------------------

## > t < 800 ms 0 ( 0%)

## > 800 ms < t < 1200 ms 217 ( 1%)

## > t > 1200 ms 19505 ( 98%)

## > failed 278 ( 1%)

## ---- Errors --------------------------------------------------------------------

## > status.find.is(201), but actually found 500 228 (82.01%)

## > j.i.IOException: Connection reset by peer 50 (17.99%)

## Spring WebFlux [(Report link)](file:///Users/moeenahmadtahir/Documents/Projects/spring-boot-1-vs-2-performance/perf-test-with-gatling/SavedReports/bootloadsimulation-1534762874296/index.html)

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---- Global Information --------------------------------------------------------

> request count 20000 (OK=19999 KO=1 )

> min response time 0 (OK=402 KO=0 )

> max response time 59824 (OK=59824 KO=0 )

> mean response time 2197 (OK=2197 KO=0 )

> std deviation 6411 (OK=6411 KO=0 )

> response time 50th percentile 492 (OK=492 KO=0 )

> response time 75th percentile 742 (OK=741 KO=0 )

> response time 95th percentile 11158 (OK=11158 KO=0 )

> response time 99th percentile 31707 (OK=31707 KO=0 )

> mean requests/sec 259.74 (OK=259.727 KO=0.013 )

---- Response Time Distribution ------------------------------------------------

> t < 800 ms 15738 ( 79%)

> 800 ms < t < 1200 ms 872 ( 4%)

> t > 1200 ms 3389 ( 17%)

> failed 1 ( 0%)

---- Errors --------------------------------------------------------------------

> j.i.IOException: Connection reset by peer 1 (100.0%)

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