

Objective: Stress testing

Service: modak-notification-center

Date: 10/24/2023 21:51 UTC

Tool: Apache Benchmark

Server specifications:

```
MacBook Pro (15-inch, 2016)
Procesador  2,6 GHz Intel Core i7 de cuatro núcleos
Memoria    16 GB 2133 MHz LPDDR3
Gráficos   Radeon Pro 450 2 GB
           Intel HD Graphics 530 1536 MB
Número de serie  C02T830VGTFLL
```

CASE 1 (5 notifications request)

First test:

Concurrence: 1

Number of Times: 1

```
→ go-modak ab -p post-5-notifications.json -T application/json -c 1 -n 1 http://localhost:8080/api/v1/notification
This is ApacheBench, Version 2.3 <$Revision: 1879490 $>
Copyright 1996 Adam Twiss, Zeus Technology Ltd, http://www.zeustech.net/
Licensed to The Apache Software Foundation, http://www.apache.org/
```

Benchmarking localhost (be patient).....done

```
Server Software:
Server Hostname:      localhost
Server Port:          8080

Document Path:        /api/v1/notification
Document Length:      499 bytes

Concurrency Level:    1
Time taken for tests:  0.018 seconds
Complete requests:    1
Failed requests:      0
Total transferred:    622 bytes
Total body sent:      746
HTML transferred:     499 bytes
Requests per second:  54.32 [#/sec] (mean)
Time per request:     18.411 [ms] (mean)
Time per request:     18.411 [ms] (mean, across all concurrent requests)
Transfer rate:        32.99 [Kbytes/sec] received
                     39.57 kb/s sent
                     72.56 kb/s total
```

```
Connection Times (ms)
      min   mean[+/-sd] median   max
Connect:    0    0   0.0      0    0
Processing: 18   18   0.0     18   18
Waiting:    18   18   0.0     18   18
Total:      18   18   0.0     18   18
```

RESULT: Time taken 0.018 seconds

Second test:

Concurrence: 3

Number of Times: 3

```
→ go-modak ab -p post-5-notifications.json -T application/json -c 3 -n 3 http://localhost:8080/api/v1/notification
This is ApacheBench, Version 2.3 <$Revision: 1879490 $>
Copyright 1996 Adam Twiss, Zeus Technology Ltd, http://www.zeustech.net/
Licensed to The Apache Software Foundation, http://www.apache.org/

Benchmarking localhost (be patient).....done

Server Software:
Server Hostname:      localhost
Server Port:          8080

Document Path:        /api/v1/notification
Document Length:      499 bytes

Concurrency Level:    3
Time taken for tests:  0.085 seconds
Complete requests:    3
Failed requests:       1
   (Connect: 0, Receive: 0, Length: 1, Exceptions: 0)
Total transferred:    1858 bytes
Total body sent:      2238
HTML transferred:     1489 bytes
Requests per second:  35.28 [#/sec] (mean)
Time per request:     85.043 [ms] (mean)
Time per request:     28.348 [ms] (mean, across all concurrent requests)
Transfer rate:        21.34 [Kbytes/sec] received
                      25.70 kb/s sent
                      47.04 kb/s total

Connection Times (ms)
      min   mean[+/-sd] median   max
Connect:    0     0   0.2      0      0
Processing: 31    46  12.9     53     53
Waiting:    30    46  13.3     53     53
Total:      31    46  13.0     54     54

Percentage of the requests served within a certain time (ms)
 50%    54
 66%    54
 75%    54
 80%    54
 90%    54
 95%    54
 98%    54
 99%    54
100%    54 (longest request)
```

RESULT: Time taken 0.085 seconds

Third test:

Concurrence: 5

Number of Times: 5

```
→ go-modak ab -p post-5-notifications.json -T application/json -c 5 -n 5 http://localhost:8080/api/v1/notification
This is ApacheBench, Version 2.3 <$Revision: 1879490 $>
Copyright 1996 Adam Twiss, Zeus Technology Ltd, http://www.zeustech.net/
Licensed to The Apache Software Foundation, http://www.apache.org/

Benchmarking localhost (be patient).....done

Server Software:
Server Hostname:      localhost
Server Port:          8080

Document Path:        /api/v1/notification
Document Length:       479 bytes

Concurrency Level:     5
Time taken for tests:   0.045 seconds
Complete requests:      5
Failed requests:         0
Total transferred:      3010 bytes
Total body sent:         3730
HTML transferred:       2395 bytes
Requests per second:    112.15 [#/sec] (mean)
Time per request:       44.584 [ms] (mean)
Time per request:       8.917 [ms] (mean, across all concurrent requests)
Transfer rate:          65.93 [Kbytes/sec] received
                        81.70 kb/s sent
                        147.63 kb/s total

Connection Times (ms)
              min    mean[+/-sd] median   max
Connect:        0      0   0.1      0      0
Processing:      7    30  12.9     36     37
Waiting:        7    30  13.1     36     37
Total:          7    30  12.9     36     37

Percentage of the requests served within a certain time (ms)
 50%    36
 66%    36
 75%    36
 80%    37
 90%    37
 95%    37
 98%    37
 99%    37
100%    37 (longest request)
→ go-modak
```

RESULT: Time taken 0.045 seconds

CASE 2 (20 notifications request)

First test:

Concurrence: 1

Number of Times: 1

```
+ go-modak ab -p post-20-notifications.json -T application/json -c 1 -n 1 http://localhost:8080/api/v1/notification
This is ApacheBench, Version 2.3 <$Revision: 1879490 $>
Copyright 1996 Adam Twiss, Zeus Technology Ltd, http://www.zeustech.net/
Licensed to The Apache Software Foundation, http://www.apache.org/

Benchmarking localhost (be patient).....done

Server Software:
Server Hostname:      localhost
Server Port:          8080

Document Path:         /api/v1/notification
Document Length:       2023 bytes

Concurrency Level:      1
Time taken for tests:   0.070 seconds
Complete requests:      1
Failed requests:        0
Total transferred:      2147 bytes
Total body sent:        2541
HTML transferred:       2023 bytes
Requests per second:    14.29 [#/sec] (mean)
Time per request:       70.003 [ms] (mean)
Time per request:       70.003 [ms] (mean, across all concurrent requests)
Transfer rate:          29.95 [Kbytes/sec] received
                       35.45 kb/s sent
                       65.40 kb/s total

Connection Times (ms)
      min    mean[+/-sd] median    max
Connect:    0      0   0.0      0      0
Processing: 70     70   0.0     70     70
Waiting:    70     70   0.0     70     70
Total:      70     70   0.0     70     70
```

RESULT: Time taken 0.070 seconds

Second test:

Concurrence: 3

Number of Times: 3

```
+ go-modak ab -p post-20-notifications.json -T application/json -c 3 -n 3 http://localhost:8080/api/v1/notification
This is ApacheBench, Version 2.3 <$Revision: 1879490 $>
Copyright 1996 Adam Twiss, Zeus Technology Ltd, http://www.zeustech.net/
Licensed to The Apache Software Foundation, http://www.apache.org/
```

Benchmarking localhost (be patient).....done

```
Server Software:
Server Hostname:      localhost
Server Port:         8080

Document Path:        /api/v1/notification
Document Length:      2023 bytes

Concurrency Level:    3
Time taken for tests:  0.232 seconds
Complete requests:    3
Failed requests:      0
Total transferred:    6441 bytes
Total body sent:      7623
HTML transferred:    6069 bytes
Requests per second:  12.94 [#/sec] (mean)
Time per request:     231.767 [ms] (mean)
Time per request:     77.256 [ms] (mean, across all concurrent requests)
Transfer rate:        27.14 [Kbytes/sec] received
                      32.12 kb/s sent
                      59.26 kb/s total
```

```
Connection Times (ms)
              min    mean[+/-sd] median   max
Connect:      0      0   0.1      0      0
Processing:   73    102  48.7    116    158
Waiting:      73    101  48.5    115    157
Total:        74    102  48.7    116    158
```

```
Percentage of the requests served within a certain time (ms)
 50%    74
 66%    74
 75%   158
 80%   158
 90%   158
 95%   158
 98%   158
 99%   158
100%   158 (longest request)
```

RESULT: Time taken 0.232 seconds

Third test:

Concurrence: 5

Number of Times: 5

```
→ go-modak ab -p post-20-notifications.json -T application/json -c 5 -n 5 http://localhost:8080/api/v1/notification
This is ApacheBench, Version 2.3 <$Revision: 1879490 $>
Copyright 1996 Adam Twiss, Zeus Technology Ltd, http://www.zeustech.net/
Licensed to The Apache Software Foundation, http://www.apache.org/

Benchmarking localhost (be patient).....done

Server Software:
Server Hostname: localhost
Server Port: 8080

Document Path: /api/v1/notification
Document Length: 1943 bytes

Concurrency Level: 5
Time taken for tests: 0.124 seconds
Complete requests: 5
Failed requests: 0
Total transferred: 10335 bytes
Total body sent: 12705
HTML transferred: 9715 bytes
Requests per second: 40.45 [#/sec] (mean)
Time per request: 123.618 [ms] (mean)
Time per request: 24.724 [ms] (mean, across all concurrent requests)
Transfer rate: 81.64 [Kbytes/sec] received
                  100.37 kb/s sent
                  182.01 kb/s total

Connection Times (ms)
      min   mean[+/-sd] median   max
Connect:    0      0   0.2      0      1
Processing:  36    76  22.1    85    87
Waiting:    35    75  22.4    85    87
Total:      36    76  22.2    86    87

Percentage of the requests served within a certain time (ms)
 50%    85
 66%    87
 75%    87
 80%    87
 90%    87
 95%    87
 98%    87
 99%    87
100%    87 (longest request)
```

RESULT: Time taken 0.124 seconds

CASE 3 (100 notifications request)

First test:

Concurrence: 1

Number of Times: 1

```
→ go-modak ab -p post-100-notifications.json -T application/json -c 1 -n 1 http://localhost:8080/api/v1/notification
This is ApacheBench, Version 2.3 <$Revision: 1879490 $>
Copyright 1996 Adam Twiss, Zeus Technology Ltd, http://www.zeustech.net/
Licensed to The Apache Software Foundation, http://www.apache.org/

Benchmarking localhost (be patient).....done


Server Software:
Server Hostname:      localhost
Server Port:          8080

Document Path:        /api/v1/notification
Document Length:      9486 bytes

Concurrency Level:     1
Time taken for tests:  0.581 seconds
Complete requests:     1
Failed requests:       0
Total transferred:     9588 bytes
Total body sent:       8841
HTML transferred:      9486 bytes
Requests per second:   1.72 [#/sec] (mean)
Time per request:      581.217 [ms] (mean)
Time per request:      581.217 [ms] (mean, across all concurrent requests)
Transfer rate:         16.11 [Kbytes/sec] received
                       14.85 kb/s sent
                       30.96 kb/s total


Connection Times (ms)
              min    mean[+/-sd] median   max
Connect:        0      0   0.0      0      0
Processing:    581    581   0.0    581    581
Waiting:        581    581   0.0    581    581
Total:          581    581   0.0    581    581
```

RESULT: Time taken 0.581 seconds

Second test:

Concurrency: 3

Number of Times: 3

```
→ go-modak ab -p post-100-notifications.json -T application/json -c 3 -n 3 http://localhost:8080/api/v1/notification
This is ApacheBench, Version 2.3 <$Revision: 1879490 $>
Copyright 1996 Adam Twiss, Zeus Technology Ltd, http://www.zeustech.net/
Licensed to The Apache Software Foundation, http://www.apache.org/

Benchmarking localhost (be patient).....done

Server Software:
Server Hostname: localhost
Server Port: 8080

Document Path: /api/v1/notification
Document Length: 9486 bytes

Concurrency Level: 3
Time taken for tests: 0.575 seconds
Complete requests: 3
Failed requests: 2
  (Connect: 0, Receive: 0, Length: 2, Exceptions: 0)
Total transferred: 27964 bytes
Total body sent: 26523
HTML transferred: 27658 bytes
Requests per second: 5.22 [#/sec] (mean)
Time per request: 574.547 [ms] (mean)
Time per request: 191.516 [ms] (mean, across all concurrent requests)
Transfer rate: 47.53 [Kbytes/sec] received
               45.08 kb/s sent
               92.61 kb/s total

Connection Times (ms)
      min      mean[+/-sd] median   max
Connect:    0       0  0.1      0      0
Processing: 200    258  86.4    287    357
Waiting:    200    258  86.1    287    357
Total:      200    258  86.4    287    358

Percentage of the requests served within a certain time (ms)
 50%    217
 66%    217
 75%    358
 80%    358
 90%    358
 95%    358
 98%    358
 99%    358
100%    358 (longest request)
→ go-modak
```

RESULT: Time taken 0.575 seconds

Third test:

Concurrence: 5

Number of Times: 5

```
100% 358 (longest request)
→ go-modak ab -p post-100-notifications.json -T application/json -c 5 -n 5 http://localhost:8080/api/v1/notification
This is ApacheBench, Version 2.3 <$Revision: 1879490 $>
Copyright 1996 Adam Twiss, Zeus Technology Ltd, http://www.zeustech.net/
Licensed to The Apache Software Foundation, http://www.apache.org/

Benchmarking localhost (be patient).....done


Server Software:
Server Hostname: localhost
Server Port: 8080

Document Path: /api/v1/notification
Document Length: 9086 bytes

Concurrency Level: 5
Time taken for tests: 0.421 seconds
Complete requests: 5
Failed requests: 0
Total transferred: 45940 bytes
Total body sent: 44205
HTML transferred: 45430 bytes
Requests per second: 11.88 [#/sec] (mean)
Time per request: 420.750 [ms] (mean)
Time per request: 84.150 [ms] (mean, across all concurrent requests)
Transfer rate: 106.63 [Kbytes/sec] received
                  102.60 kb/s sent
                  209.23 kb/s total


Connection Times (ms)
              min  mean[+/-sd] median  max
Connect:      0    0   0.1    0    0
Processing:  123  249  71.3   278  297
Waiting:      123  248  71.6   278  297
Total:        123  249  71.4   279  297


Percentage of the requests served within a certain time (ms)
 50%    268
 66%    289
 75%    289
 80%    297
 90%    297
 95%    297
 98%    297
 99%    297
100%    297 (longest request)
```

RESULT: Time taken 0.421 seconds

CASE 4 (1000 notifications request)

First test:

Concurrence: 1

Number of Times: 1

```
100% 297 (longest request)
+ go-modak ab -p post-1000-notifications.json -T application/json -c 1 -n 1 http://localhost:8080/api/v1/notification
This is ApacheBench, Version 2.3 <$Revision: 1879490 $>
Copyright 1996 Adam Twiss, Zeus Technology Ltd, http://www.zeustech.net/
Licensed to The Apache Software Foundation, http://www.apache.org/

Benchmarking localhost (be patient).....done

Server Software:
Server Hostname:      localhost
Server Port:          8080

Document Path:        /api/v1/notification
Document Length:      96788 bytes

Concurrency Level:    1
Time taken for tests:  3.271 seconds
Complete requests:    1
Failed requests:       0
Total transferred:    96890 bytes
Total body sent:      88944
HTML transferred:     96788 bytes
Requests per second:  0.31 [#/sec] (mean)
Time per request:     3271.389 [ms] (mean)
Time per request:     3271.389 [ms] (mean, across all concurrent requests)
Transfer rate:        28.92 [Kbytes/sec] received
                     26.55 kb/s sent
                     55.47 kb/s total

Connection Times (ms)
              min  mean[+/-sd] median  max
Connect:        0    0   0.0      0    0
Processing:    3271 3271   0.0   3271  3271
Waiting:       3271 3271   0.0   3271  3271
Total:         3271 3271   0.0   3271  3271
```

RESULT: Time taken 3.271 seconds

Second test:

Concurrence: 3

Number of Times: 3

```
→ go-modak ab -p post-1000-notifications.json -T application/json -c 3 -n 3 http://localhost:8080/api/v1/notification
This is ApacheBench, Version 2.3 <$Revision: 1879490 $>
Copyright 1996 Adam Twiss, Zeus Technology Ltd, http://www.zeustech.net/
Licensed to The Apache Software Foundation, http://www.apache.org/

Benchmarking localhost (be patient).....done

Server Software:
Server Hostname:      localhost
Server Port:          8080

Document Path:        /api/v1/notification
Document Length:      96788 bytes

Concurrency Level:    3
Time taken for tests:  6.483 seconds
Complete requests:    3
Failed requests:      2
  (Connect: 0, Receive: 0, Length: 2, Exceptions: 0)
Total transferred:    282670 bytes
Total body sent:      266832
HTML transferred:     282364 bytes
Requests per second:  0.46 [#/sec] (mean)
Time per request:     6482.596 [ms] (mean)
Time per request:     2160.865 [ms] (mean, across all concurrent requests)
Transfer rate:        42.58 [Kbytes/sec] received
                      40.20 kb/s sent
                      82.78 kb/s total

Connection Times (ms)
              min    mean[+/-sd] median    max
Connect:        0      0   0.1      0      0
Processing:    2665 3049 662.6   3241   3814
Waiting:       2665 3049 662.3   3241   3814
Total:         2666 3050 662.5   3241   3815

Percentage of the requests served within a certain time (ms)
 50%    2668
 66%    2668
 75%    3815
 80%    3815
 90%    3815
 95%    3815
 98%    3815
 99%    3815
100%    3815 (longest request)
```

RESULT: Time taken 6.483 seconds

Third test:

Concurrence: 5

Number of Times: 5

```
→ go-modak ab -p post-1000-notifications.json -T application/json -c 5 -n 5 http://localhost:8080/api/v1/notification
This is ApacheBench, Version 2.3 <$Revision: 1879490 $>
Copyright 1996 Adam Twiss, Zeus Technology Ltd, http://www.zeustech.net/
Licensed to The Apache Software Foundation, http://www.apache.org/

Benchmarking localhost (be patient).....done


Server Software:
Server Hostname:      localhost
Server Port:          8080

Document Path:        /api/v1/notification
Document Length:      92788 bytes

Concurrency Level:    5
Time taken for tests:  12.157 seconds
Complete requests:    5
Failed requests:       4
   (Connect: 0, Receive: 0, Length: 4, Exceptions: 0)
Total transferred:    478678 bytes
Total body sent:      444720
HTML transferred:     478168 bytes
Requests per second:  0.41 [#/sec] (mean)
Time per request:     12157.024 [ms] (mean)
Time per request:     2431.405 [ms] (mean, across all concurrent requests)
Transfer rate:        38.45 [Kbytes/sec] received
                       35.72 kb/s sent
                       74.18 kb/s total


Connection Times (ms)
              min   mean[+/-sd] median   max
Connect:        0    0   0.1      0      0
Processing:    3101 7863 2662.1   9055   9056
Waiting:       3100 7863 2662.4   9054   9056
Total:         3101 7863 2662.1   9055   9056


Percentage of the requests served within a certain time (ms)
 50%    9055
 66%    9055
 75%    9055
 80%    9056
 90%    9056
 95%    9056
 98%    9056
 99%    9056
100%    9056 (longest request)
```

RESULT: Time taken 12.157 seconds