

MySQL 5.1.53 vs MySQL 5.5.8 vs MariaDB 5.2.4

Chiffres bruts

DBT2

MySQL 5.1.53, Concurrent user: 40

Response Time (s)

Transaction % Average : 90th % Total Rollbacks %

Delivery 2.15 15.273 : 19.336 476 0 0.00
New Order 46.42 17.891 : 21.863 10264 4655 82.99
Order Status 3.33 14.591 : 17.762 736 251 51.75
Payment 44.03 30.519 : 41.236 9735 4441 83.89
Stock Level 4.07 16.788 : 19.937 899 424 89.26

114.71 new-order transactions per minute (NOTPM)

8.3 minute duration

0 total unknown errors

0 second(s) ramping up

MySQL 5.5.8, Concurrent user: 40

Response Time (s)

Transaction % Average : 90th % Total Rollbacks %

Delivery 2.32 15.356 : 22.608 577 12 2.12
New Order 46.05 17.126 : 21.748 11451 5160 82.02
Order Status 3.47 13.479 : 16.685 864 301 53.46
Payment 43.77 22.968 : 31.803 10884 4923 82.59
Stock Level 4.39 18.112 : 23.806 1091 518 90.40

135.99 new-order transactions per minute (NOTPM)

8.3 minute duration

0 total unknown errors

1 second(s) ramping up

MySQL 5.2.4, Concurrent user: 40

Response Time (s)

Transaction % Average : 90th % Total Rollbacks %

Delivery 2.26 10.611 : 14.264 755 0 0.00
New Order 46.14 14.526 : 20.334 15404 6972 82.69

Order Status 3.21 9.667 : 13.251 1073 349 48.20
Payment 44.06 15.798 : 24.576 14710 6672 83.01
Stock Level 4.32 23.592 : 34.462 1441 691 92.13

175.55 new-order transactions per minute (NOTPM)

8.3 minute duration
0 total unknown errors
0 second(s) ramping up

MySQL 5.1.53, Concurrent user: 150

Response Time (s)
Transaction % Average : 90th % Total Rollbacks %

Delivery 2.09 0.742 : 1.218 8687 0 0.00
New Order 46.61 24.014 : 39.287 193658 96504 99.33
Order Status 3.28 0.594 : 1.187 13645 5128 60.21
Payment 43.92 18.737 : 20.338 182492 90358 98.07
Stock Level 4.10 4.925 : 9.651 17029 8495 99.54

78.16 new-order transactions per minute (NOTPM)

8.3 minute duration
0 total unknown errors
0 second(s) ramping up

MySQL 5.5.8, Concurrent user: 150

Response Time (s)
Transaction % Average : 90th % Total Rollbacks %

Delivery 2.04 0.597 : 1.364 12132 0 0.00
New Order 46.43 6.797 : 11.554 275843 137438 99.30
Order Status 3.31 0.439 : 1.193 19657 7329 59.45
Payment 44.13 13.333 : 46.975 262172 129595 97.75
Stock Level 4.09 14.835 : 23.516 24300 12127 99.62

116.27 new-order transactions per minute (NOTPM)

8.3 minute duration
0 total unknown errors
0 second(s) ramping up

MySQL 5.2.4, Concurrent user: 150

Response Time (s)
Transaction % Average : 90th % Total Rollbacks %

Delivery 2.07 0.198 : 0.233 39113 0 0.00
New Order 46.49 8.077 : 15.057 878636 438802 99.77
Order Status 3.31 0.167 : 0.201 62499 23339 59.60

Payment 43.98 4.907 : 6.838 831272 411450 98.01
Stock Level 4.15 17.248 : 31.602 78431 39194 99.89

124.09 new-order transactions per minute (NOTPM)
8.3 minute duration
0 total unknown errors
0 second(s) ramping up

SYSBENCH

oltp-test-mode=complex
transactions (insert/... +COMMIT)

oltp-test-mode=simple
SELECT c from sbtest where id=40367038

oltp-test-mode=complex + oltp-read-only
SELECT c from sbtest where id between 40339323 and 40339422 order by c
SELECT DISTINCT c from sbtest where id between ? and ? order by c
SELECT c from sbtest where id=40146006
SELECT c from sbtest where id between 40101182 and 40101281 order by c

***** MySQL 5.1.53 *****

MySQL 5.1.53, Concurrent user: 40, lectures

OLTP test statistics:

queries performed:

read: 7000042

write: 0

other: 1500009

total: 8500051

transactions: 500003 (1016.54 per sec.)

deadlocks: 0 (0.00 per sec.)

read/write requests: 7000042 (14231.63 per sec.)

other operations: 1500009 (3049.63 per sec.)

Test execution summary:

total time: 491.8651s

total number of events: 500003

total time taken by event execution: 19669.3352

per-request statistics:

min: 11.59ms

avg: 39.34ms

max: 120.81ms

approx. 95 percentile: 60.86ms

Threads fairness:

events (avg/stddev): 12500.0750/34.34
execution time (avg/stddev): 491.7334/0.01

MySQL 5.1.53, Concurrent user: 40, lectures

OLTP test statistics:

queries performed:

read: 500004

write: 0

other: 0

total: 500004

transactions: 500004 (32666.97 per sec.)

deadlocks: 0 (0.00 per sec.)

read/write requests: 500004 (32666.97 per sec.)

other operations: 0 (0.00 per sec.)

Test execution summary:

total time: 15.3061s

total number of events: 500004

total time taken by event execution: 609.6822

per-request statistics:

min: 0.05ms

avg: 1.22ms

max: 236.40ms

approx. 95 percentile: 0.11ms

Threads fairness:

events (avg/stddev): 12500.1000/217.29

execution time (avg/stddev): 15.2421/0.04

MySQL 5.1.53, Concurrent user: 40, transactions

OLTP test statistics:

queries performed:

read: 1119496

write: 399820

other: 88458

total: 1607774

transactions: 4247 (8.43 per sec.)

deadlocks: 75717 (150.38 per sec.)

read/write requests: 1519316 (3017.47 per sec.)

other operations: 88458 (175.68 per sec.)

Test execution summary:

total time: 503.5074s

total number of events: 4247

total time taken by event execution: 20070.3831

per-request statistics:

min: 126.63ms

avg: 4725.78ms

max: 160640.08ms

approx. 95 percentile: 6340.13ms

Threads fairness:

events (avg/stddev): 106.1750/6.34

execution time (avg/stddev): 501.7596/1.02

MySQL 5.1.53, Concurrent user: 150, lectures

OLTP test statistics:

queries performed:

read: 7000028

write: 0

other: 1500006

total: 8500034

transactions: 500002 (1053.65 per sec.)

deadlocks: 0 (0.00 per sec.)

read/write requests: 7000028 (14751.09 per sec.)

other operations: 1500006 (3160.95 per sec.)

Test execution summary:

total time: 474.5431s

total number of events: 500002

total time taken by event execution: 71167.3886

per-request statistics:

min: 11.65ms

avg: 142.33ms

max: 445.18ms

approx. 95 percentile: 232.12ms

Threads fairness:

events (avg/stddev): 3333.3467/18.66

execution time (avg/stddev): 474.4493/0.03

MySQL 5.1.53, Concurrent user: 150, lectures

OLTP test statistics:

queries performed:

read: 500006

write: 0

other: 0

total: 500006

transactions: 500006 (33616.83 per sec.)

deadlocks: 0 (0.00 per sec.)

read/write requests: 500006 (33616.83 per sec.)

other operations: 0 (0.00 per sec.)

Test execution summary:

total time: 14.8737s

total number of events: 500006

total time taken by event execution: 2204.6425

per-request statistics:

min: 0.05ms

avg: 4.41ms

max: 1120.43ms

approx. 95 percentile: 1.68ms

Threads fairness:

events (avg/stddev): 3333.3733/229.74

execution time (avg/stddev): 14.6976/0.25

MySQL 5.1.53, Concurrent user: 150, transactions

OLTP test statistics:

queries performed:

read: 50120

write: 17900

other: 10740

total: 78760

transactions: 3580 (6.95 per sec.)

deadlocks: 0 (0.00 per sec.)

read/write requests: 68020 (132.02 per sec.)

other operations: 10740 (20.85 per sec.)

Test execution summary:

total time: 515.2306s

total number of events: 3580

total time taken by event execution: 76249.5722

per-request statistics:

min: 6080.61ms

avg: 21298.76ms

max: 58986.94ms

approx. 95 percentile: 25973.72ms

Threads fairness:

events (avg/stddev): 23.8667/0.73

execution time (avg/stddev): 508.3305/4.25

***** **MySQL 5.5.8** *****

MySQL 5.5.8, Concurrent user: 40, lectures

OLTP test statistics:

queries performed:

read: 6291362

write: 0

other: 1348149

total: 7639511

transactions: 449383 (898.71 per sec.)

deadlocks: 0 (0.00 per sec.)

read/write requests: 6291362 (12581.99 per sec.)

other operations: 1348149 (2696.14 per sec.)

Test execution summary:

total time: 500.0291s

total number of events: 449383

total time taken by event execution: 19996.3958

per-request statistics:

min: 11.85ms

avg: 44.50ms

max: 144.36ms

approx. 95 percentile: 68.83ms

Threads fairness:

events (avg/stddev): 11234.5750/30.91

execution time (avg/stddev): 499.9099/0.01

MySQL 5.5.8, Concurrent user: 40, lectures

OLTP test statistics:

queries performed:

read: 500006

write: 0

other: 0

total: 500006

transactions: 500006 (28182.21 per sec.)

deadlocks: 0 (0.00 per sec.)

read/write requests: 500006 (28182.21 per sec.)

other operations: 0 (0.00 per sec.)

Test execution summary:

total time: 17.7419s

total number of events: 500006

total time taken by event execution: 706.5229

per-request statistics:

min: 0.06ms

avg: 1.41ms

max: 325.19ms

approx. 95 percentile: 0.11ms

Threads fairness:

events (avg/stddev): 12500.1500/100.53

execution time (avg/stddev): 17.6631/0.06

MySQL 5.5.8, Concurrent user: 40, transactions

OLTP test statistics:

queries performed:

read: 1467746

write: 524195

other: 279313

total: 2271254

transactions: 87237 (174.40 per sec.)

deadlocks: 17602 (35.19 per sec.)
read/write requests: 1991941 (3982.15 per sec.)
other operations: 279313 (558.38 per sec.)

Test execution summary:

total time: 500.2181s
total number of events: 87237
total time taken by event execution: 20003.0474
per-request statistics:
min: 92.93ms
avg: 229.30ms
max: 22724.73ms

approx. 95 percentile: 392.76ms

Threads fairness:

events (avg/stddev): 2180.9250/10.40
execution time (avg/stddev): 500.0762/0.06

MySQL 5.5.8, Concurrent user: 150, lectures

OLTP test statistics:

queries performed:

read: 6363042

write: 0

other: 1363509

total: 7726551

transactions: 454503 (908.80 per sec.)

deadlocks: 0 (0.00 per sec.)
read/write requests: 6363042 (12723.25 per sec.)
other operations: 1363509 (2726.41 per sec.)

Test execution summary:

total time: 500.1113s
total number of events: 454503
total time taken by event execution: 75003.0980
per-request statistics:
min: 11.96ms
avg: 165.02ms
max: 496.43ms

approx. 95 percentile: 250.16ms

Threads fairness:

events (avg/stddev): 3030.0200/16.41
execution time (avg/stddev): 500.0207/0.03

MySQL 5.5.8, Concurrent user: 150, lectures

OLTP test statistics:

queries performed:

read: 500009
write: 0
other: 0
total: 500009
transactions: 500009 (28531.23 per sec.)
deadlocks: 0 (0.00 per sec.)
read/write requests: 500009 (28531.23 per sec.)
other operations: 0 (0.00 per sec.)

Test execution summary:

total time: 17.5250s
total number of events: 500009
total time taken by event execution: 2615.0563
per-request statistics:
min: 0.06ms
avg: 5.23ms
max: 942.83ms
approx. 95 percentile: 4.77ms

Threads fairness:

events (avg/stddev): 3333.3933/104.15
execution time (avg/stddev): 17.4337/0.19

MySQL 5.5.8, Concurrent user: 150, transactions

OLTP test statistics:

queries performed:
read: 189308
write: 67610
other: 40566
total: 297484
transactions: 13522 (26.92 per sec.)
deadlocks: 0 (0.00 per sec.)
read/write requests: 256918 (511.49 per sec.)
other operations: 40566 (80.76 per sec.)

Test execution summary:

total time: 502.2979s
total number of events: 13522
total time taken by event execution: 75288.8041
per-request statistics:
min: 615.24ms
avg: 5567.87ms
max: 25175.52ms
approx. 95 percentile: 8684.19ms

Threads fairness:

events (avg/stddev): 90.1467/3.40
execution time (avg/stddev): 501.9254/0.20

***** MariaDB 5.2.4 *****

MySQL 5.2.4, Concurrent user: 40, lectures

OLTP test statistics:

queries performed:

read: 7000098

write: 0

other: 1500021

total: 8500119

transactions: 500007 (1009.43 per sec.)

deadlocks: 0 (0.00 per sec.)

read/write requests: 7000098 (14132.08 per sec.)

other operations: 1500021 (3028.30 per sec.)

Test execution summary:

total time: 495.3340s

total number of events: 500007

total time taken by event execution: 19808.2292

per-request statistics:

min: 11.61ms

avg: 39.62ms

max: 177.61ms

approx. 95 percentile: 62.79ms

Threads fairness:

events (avg/stddev): 12500.1750/22.67

execution time (avg/stddev): 495.2057/0.01

MySQL 5.2.4, Concurrent user: 40, lectures

OLTP test statistics:

queries performed:

read: 500002

write: 0

other: 0

total: 500002

transactions: 500002 (31745.57 per sec.)

deadlocks: 0 (0.00 per sec.)

read/write requests: 500002 (31745.57 per sec.)

other operations: 0 (0.00 per sec.)

Test execution summary:

total time: 15.7503s

total number of events: 500002

total time taken by event execution: 628.0858

per-request statistics:

min: 0.05ms

avg: 1.26ms

max: 153.57ms

approx. 95 percentile: 0.06ms

Threads fairness:

events (avg/stddev): 12500.0500/338.84

execution time (avg/stddev): 15.7021/0.00

MySQL 5.2.4, Concurrent user: 40, transactions

OLTP test statistics:

queries performed:

read: 1426894

write: 509605

other: 301927

total: 2238426

transactions: 100003 (199.88 per sec.)

deadlocks: 1918 (3.83 per sec.)

read/write requests: 1936499 (3870.54 per sec.)

other operations: 301927 (603.47 per sec.)

Test execution summary:

total time: 500.3171s

total number of events: 100003

total time taken by event execution: 20009.0626

per-request statistics:

min: 85.64ms

avg: 200.08ms

max: 6178.22ms

approx. 95 percentile: 332.04ms

Threads fairness:

events (avg/stddev): 2500.0750/5.64

execution time (avg/stddev): 500.2266/0.07

MySQL 5.2.4, Concurrent user: 150, lectures

OLTP test statistics:

queries performed:

read: 7000070

write: 0

other: 1500015

total: 8500085

transactions: 500005 (1003.93 per sec.)

deadlocks: 0 (0.00 per sec.)

read/write requests: 7000070 (14055.08 per sec.)

other operations: 1500015 (3011.80 per sec.)

Test execution summary:

total time: 498.0455s

total number of events: 500005

total time taken by event execution: 74696.2706

per-request statistics:

min: 11.81ms

avg: 149.39ms

max: 633.51ms

approx. 95 percentile: 234.28ms

Threads fairness:

events (avg/stddev): 3333.3667/17.87

execution time (avg/stddev): 497.9751/0.02

MySQL 5.2.4, Concurrent user: 150, lectures

OLTP test statistics:

queries performed:

read: 500002

write: 0

other: 0

total: 500002

transactions: 500002 (32897.23 per sec.)

deadlocks: 0 (0.00 per sec.)

read/write requests: 500002 (32897.23 per sec.)

other operations: 0 (0.00 per sec.)

Test execution summary:

total time: 15.1989s

total number of events: 500002

total time taken by event execution: 2274.0108

per-request statistics:

min: 0.05ms

avg: 4.55ms

max: 492.16ms

approx. 95 percentile: 0.05ms

Threads fairness:

events (avg/stddev): 3333.3467/51.07

execution time (avg/stddev): 15.1601/0.02

MySQL 5.2.4, Concurrent user: 150, transactions

OLTP test statistics:

queries performed:

read: 258160

write: 92200

other: 55320

total: 405680

transactions: 18440 (36.63 per sec.)

deadlocks: 0 (0.00 per sec.)

read/write requests: 350360 (695.97 per sec.)

other operations: 55320 (109.89 per sec.)

Test execution summary:

total time: 503.4115s
total number of events: 18440
total time taken by event execution: 75409.7535
per-request statistics:
min: 257.01ms
avg: 4089.47ms
max: 21631.91ms

approx. 95 percentile: 7639.92ms

Threads fairness:
events (avg/stddev): 122.9333/4.44
execution time (avg/stddev): 502.7317/0.43

MYSQLSLAP

Running for engine innodb

Number of clients running queries: 40

Average number of queries per client: 300

- mixed (half inserts, half scanning selects)
- write (insert into tables),
- read (scan tables),
- key (read primary keys),
- update (update primary keys),

Average number of seconds to run all queries

MySQL 5.1.53

Update : 1241.236 seconds

Write :1098.604 seconds

Mixed : 601.780 seconds

Read : 1.993 seconds

Key : 0.501 seconds

concurrency=150:

Update : ERROR : Lock wait timeout exceeded; try restarting transaction

Write : 685.481

Mixed : 222.447 seconds

Read : 1.254

Key : 0.319

MySQL 5.5.8

Update : 65.569 seconds

Write : 64.821 seconds

Mixed : 38.759 seconds

Read : 2.176 seconds

Key : 0.547 seconds

concurrency=150 :

Update : 17.862

Write : 16.294

Mixed : 8.896 seconds

Read : 1.438

Key : 0.342

MariaDB 5.2.4

Update :60.420 seconds

Write : 59.977 seconds

Mixed : 33.174 seconds

Read : 2.161 seconds

Key : 0.519 seconds

concurrency=150 :

Update : 14.142

Write : 14.507

Mixed : 8.932 seconds

Read : 1.255

Key : 0.316