

Benchmark MariaDB

L'idée est d'appuyer la page "[Monter cluster MariaDB Galera avec HAproxy](#)".

Ceci a été réalisé sur plusieurs VM avec les specs suivantes :

CPU	1 cœur
RAM	2GB
Disque	NVMe limité a 200MB lecture et écriture
OS	Debian Buster
Version	10.3.22-0+deb10u1

Pour servir de référence, voici les résultat d'un serveur seul serveur :

READ ONLY :

```
# sysbench /usr/share/sysbench/oltp_read_only.lua --threads=150 --events=0
--time=60 --mysql-host=192.168.1.219 --mysql-user=sysbench --mysql-
password=XXXXXXXXXXXX --mysql-db=sysbench --mysql-port=3306 --tables=10 --
table-size=1000000 --range_selects=off --db-ps-mode=disable run

SQL statistics:
  queries performed:
    read:                786340
    write:                0
    other:               157268
    total:               943608
  transactions:         78634 (1309.19 per sec.)
  queries:              943608 (15710.30 per sec.)
  ignored errors:       0 (0.00 per sec.)
  reconnects:           0 (0.00 per sec.)

General statistics:
  total time:            60.0619s
  total number of events: 78634

Latency (ms):
  min:                   1.91
  avg:                   114.53
  max:                   1486.99
  95th percentile:      150.29
  sum:                   9006051.07

Threads fairness:
  events (avg/stddev):   524.2267/4.21
  execution time (avg/stddev): 60.0403/0.02
```

WRITE ONLY :

```
# sysbench /usr/share/sysbench/oltp_write_only.lua --threads=150 --events=0
--time=60 --mysql-host=192.168.1.219 --mysql-user=sysbench --mysql-
password=XXXXXXXXXXXX --mysql-db=sysbench --mysql-port=3306 --tables=10 --
table-size=1000000 --range_selects=off --db-ps-mode=disable run
```

```
SQL statistics:
  queries performed:
    read:                0
    write:               56908
    other:               28454
    total:               85362
  transactions:         14227 (236.59 per sec.)
  queries:              85362 (1419.55 per sec.)
  ignored errors:       0 (0.00 per sec.)
  reconnects:           0 (0.00 per sec.)
```

```
General statistics:
  total time:           60.1321s
  total number of events: 14227
```

```
Latency (ms):
  min:                  9.60
  avg:                  633.86
  max:                  6140.78
  95th percentile:    1903.57
  sum:                  9017982.08
```

```
Threads fairness:
  events (avg/stddev): 94.8467/7.38
  execution time (avg/stddev): 60.1199/0.02
```

READ/WRITE ONLY :

```
# sysbench /usr/share/sysbench/oltp_read_write.lua --threads=150 --events=0
--time=60 --mysql-host=192.168.1.219 --mysql-user=sysbench --mysql-
password=XXXXXXXXXXXX --mysql-db=sysbench --mysql-port=3306 --tables=10 --
table-size=1000000 --range_selects=off --db-ps-mode=disable run
```

```
SQL statistics:
  queries performed:
    read:                338790
    write:               135516
    other:               67758
    total:               542064
  transactions:         33879 (560.14 per sec.)
  queries:              542064 (8962.31 per sec.)
```

```

    ignored errors:                0      (0.00 per sec.)
    reconnects:                    0      (0.00 per sec.)

General statistics:
    total time:                    60.4814s
    total number of events:        33879

Latency (ms):
    min:                            11.90
    avg:                             267.50
    max:                             1551.45
    95th percentile:                669.89
    sum:                             9062801.75

Threads fairness:
    events (avg/stddev):            225.8600/7.52
    execution time (avg/stddev):    60.4187/0.14

```

Et pour le cluster :

READ ONLY

```

# sysbench /usr/share/sysbench/oltp_read_only.lua --threads=450 --events=0
--time=60 --mysql-host=192.168.1.210 --mysql-user=sysbench --mysql-
password=XXXXXXXXXXXX --mysql-db=sysbench --mysql-port=3306 --tables=10 --
table-size=1000000 --range_selects=off --db-ps-mode=disable --report-
interval=1 run

READ CLUSTER :
SQL statistics:
    queries performed:
        read:                        1696160
        write:                        0
        other:                        339232
        total:                        2035392
    transactions:                    169616 (2821.89 per sec.)
    queries:                          2035392 (33862.68 per sec.)
    ignored errors:                    0      (0.00 per sec.)
    reconnects:                        0      (0.00 per sec.)

General statistics:
    total time:                    60.1061s
    total number of events:        169616

Latency (ms):
    min:                            68.24
    avg:                             160.41
    max:                             636.26
    95th percentile:                219.36
    sum:                             27208895.71

```

```

Threads fairness:
  events (avg/stddev):           374.4283/3.93
  execution time (avg/stddev):   60.0638/0.03

```

WRITE ONLY :

```

# sysbench /usr/share/sysbench/oltp_write_only.lua --threads=450 --events=0
--time=60 --mysql-host=192.168.1.210 --mysql-user=sysbench --mysql-
password=XXXXXXXXXXXX --mysql-db=sysbench --mysql-port=3306 --tables=10 --
table-size=1000000 --range_selects=off --db-ps-mode=disable --report-
interval=1 run

```

```

SQL statistics:
  queries performed:
    read:                0
    write:               22116
    other:               10956
    total:               33072
  transactions:         5427 (73.59 per sec.)
  queries:              33072 (448.48 per sec.)
  ignored errors:       102 (1.38 per sec.)
  reconnects:           0 (0.00 per sec.)

```

```

General statistics:
  total time:           73.7405s
  total number of events: 5427

```

```

Latency (ms):
  min:                 152.79
  avg:                 5524.15
  max:                 27907.00
  95th percentile:    14562.82
  sum:                 29979552.28

```

```

Threads fairness:
  events (avg/stddev):           12.0600/0.50
  execution time (avg/stddev):   66.6212/3.99

```

READ/WRITE ONLY :

```

# sysbench /usr/share/sysbench/oltp_read_write.lua --threads=450 --events=0
--time=60 --mysql-host=192.168.1.210 --mysql-user=sysbench --mysql-
password=XXXXXXXXXXXX --mysql-db=sysbench --mysql-port=3306 --tables=10 --
table-size=1000000 --range_selects=off --db-ps-mode=disable --report-
interval=1 run

```

```

SQL statistics:

```

```
queries performed:
  read:                55220
  write:               22083
  other:               10926
  total:               88229
transactions:         5404   (71.71 per sec.)
queries:              88229  (1170.72 per sec.)
ignored errors:       118    (1.57 per sec.)
reconnects:           0      (0.00 per sec.)
```

```
General statistics:
  total time:          75.3617s
  total number of events: 5404
```

```
Latency (ms):
  min:                 235.84
  avg:                 5578.60
  max:                 27048.90
  95th percentile:    14827.42
  sum:                 30146729.02
```

```
Threads fairness:
  events (avg/stddev): 12.0089/0.56
  execution time (avg/stddev): 66.9927/4.46
```

Conclusion :

D'un point de vue requêtes de lecture, il y a un gain significatif de performance, là ou en écriture, il y a une réduction, du fait de la synchronisation de la données sur l'ensemble du cluster.

From:
<https://wiki.virtit.fr/> - **VirtIT**

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